7.0 INDUSTRIAL COMPONENT

7.1 INTRODUCTION

This section addresses the requirements of the Industrial Permit, Provision E.5 (Existing Development Management) of the Municipal Permit as it pertains to industrial facilities, and relevant strategies for industrial discharges outlined in the San Diego Bay WQIP.

Many sources were consulted in preparing this section, including Authority plans and regulations as well as state and federal plans and permits. Authority regulations utilized include the SAN Rules and Regulations and the San Diego County Regional Airport Authority Storm Water Code. The state and federal permits, plans, and regulations consulted include the Water Quality Control Plan for the San Diego Basin (Basin Plan), the California 2010 Integrated Report 303(d) List/305(b) Report, hazardous waste regulations and permits, and air quality regulations and permits.

In general, Section 7.0 addresses most of the requirements outlined in the Industrial Permit for industrial dischargers. Additional information is included in Appendix A, Appendix B, Appendix D.1, Appendix E, Figures 3 through 7, and other sections of the SWMP as noted in this section. As listed below, the sections of the Industrial Permit requires the Authority to:

II—Obtain coverage under the Industrial Permit through submission of all Permit Required Documents (PRDs) via SMARTS. As a facility discharging storm water associated with industrial activity to San Diego Bay, a water of the United States, SAN must certify and submit a NOI by July 1, 2015. All changes or terminations of Industrial Permit coverage and required reports will be submitted through SMARTS. Section 7.2 has been prepared to address this requirement.

III—Prohibit all discharges of storm water to waters of the United States, except as authorized by the Industrial Permit or the Municipal Permit. All non-storm water discharges (NSWDs) are prohibited, except those designated as authorized by the NPDES permits. Both storm water discharges and NSWDs are prohibited if they contain pollutants that cause or threaten to cause pollution, contamination, or nuisance. Other discharge prohibitions, including those stated in regional or statewide water quality control plans and federal regulations, are also enforced. Section 7.5.1 has been prepared to address this requirement.

IV—Prohibit NSWDs, except for certain authorized classes, provided that these authorized NSWDs (1) do not otherwise violate regional or statewide water quality control plans, or the Authority's Storm Water Code or Rules and Regulations; (2) have appropriate BMPs in place, as outlined in this document; (3) are visually inspected monthly; and (4) are reported by the Authority in the Industrial Annual Report. Section 7.5.2 has been prepared to address this requirement.

V—Implement BMPs using BAT and BCT to reduce or prevent discharge of pollutants in industrial storm water runoff. The Authority will comply with any applicable Federal Storm Water Effluent Limitation Guidelines (ELGs) outlined in USEPA regulations in 40 CFR Chapter I Subchapter N (Subchapter N). The Authority will comply with any applicable total maximum daily loads (TMDLs). Section 7.5.3 has been prepared to address this requirement.

VI—Ensure that industrial storm water discharges and NSWDs do not cause or contribute to the exceedance of a water quality standard in the receiving water (San Diego Bay), do not adversely affect human health or the environment, and do not contain pollutants in quantities that threaten to cause pollution or public nuisance. Section 7.5.4 has been prepared to address this requirement.

VII—Comply with any incorporated TMDL-specific requirements, once the Industrial Permit is amended to incorporate any TMDLs applicable to the Authority. New dischargers applying for coverage under the Industrial Permit are also required to comply with special regulations associated with 303(d)-listed impairments in the receiving water. However, the Authority is not classified as a new discharger. Section 7.5.3 has been prepared to address this requirement.

VIII—If discharging to the ocean, comply with the California Ocean Plan. Per the definitions outlined in the California Ocean Plan, the Authority discharges to an enclosed bay, and therefore California Ocean Plan requirements are not applicable. Section VIII is not addressed in this plan.

IX—Ensure appropriate training. Section 7.6 has been prepared to address this requirement.

X—Prepare a SWPPP. This section of the Authority's SWMP (Section 7.0), and other applicable sections or appendices, as indicated in this section, comprise the Authority's SWPPP as required by the Industrial Permit. Required components of the SWPPP include (1) facility name and contact information; (2) a site map; (3) a list of industrial materials; (4) a description of potential pollutant sources; (5) an assessment of potential pollutant sources; (6) minimum BMPs; (7) advanced BMPs, if applicable; (8) a monitoring implementation plan; (9) an Annual Evaluation; and (10) the date that the SWPPP was initially prepared and date of each subsequent revision. A copy of this SWPPP will be maintained with the EAD and is available on the Authority's webpage. The locations of required SWPPP elements are provided in Appendix A. Most of the SWPPP requirements are addressed in Section 7.7.

XI—Conduct monitoring, including monthly dry weather visual observations of each drainage area, wet weather visual observations during each wet weather sampling event, and wet weather sampling four times per year during qualifying storm events (QSEs). Sampling results will be compared with numeric action levels (NALs) as outlined in the Industrial Permit. Sections 7.8.3 and 7.8.4 and Appendix D-1 have been prepared to address this requirement.

XII—Respond to NAL exceedances in a given year by escalating to a Level 1 status and conducting a Level 1 Exceedance Response Action (ERA) evaluation and report. The evaluation and report will be completed by or with the assistance of a Qualified Industrial Storm Water Practitioner (QISP). Respond to continuing NAL exceedances by escalating to a Level 2 status and completing a Level 2 ERA Action Plan. This Action Plan will be followed by a Level 2 ERA Technical Report the following year. Section 7.9 has been prepared to address this requirement.

XIII—Comply with regulations for inactive mining operations. This section is not applicable to the Authority and is not addressed in this plan.

XIV—Choose to form a Compliance Group with other dischargers of the same industry type. The Authority has elected not to join a Compliance Group, and Section XIV is not addressed in this plan.

XV—Complete an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation). Section 7.10.1 has been prepared to address this requirement.

XVI—Complete an Annual Report and submit via SMARTS. Section 7.10.2 has been prepared to address this requirement.

XVII—File for a conditional exclusion to the Industrial Permit if there is no exposure of storm water to industrial activities. The Authority does not intend to file for a conditional exclusion because of no exposure and so Section XVII is not addressed in this plan.

XVIII—Comply with additional regulations applicable to facilities handling plastic materials. The Authority does not handle plastic materials as described in Section XVIII and therefore this section is not addressed in this plan.

XIX—Recognize the Regional Water Board's authority to review and enforce the Authority's compliance with the Industrial Permit.

XX and XXI—Be subject to various special and standard conditions. Violations of the Industrial Permit are subject to a civil penalty not to exceed $37,500 per calendar day of such violation.

The Municipal Permit requires that the Authority, as a Copermittee, establish, maintain, and enforce its legal authority to manage existing developments within its jurisdiction, including industrial developments. For the purposes of enforcement, the Authority considers existing industrial lease holders to be existing development. Per Provision E.5 of the Municipal Permit, the Authority will inventory and track all industrial developments, designate a minimum set of BMPs for all inventoried industrial developments, and inspect all industrial developments at a minimum of once every five years. The monthly inspections required by the Industrial Permit will supersede this municipal inspection requirement. The Authority will also retrofit and rehabilitate areas of existing development that are identified sources of pollutants or stressors that contribute to the focused priority water quality condition for the Authority jurisdiction. This is discussed in Section 6. Requirements of the Municipal Permit as they pertain to industrial discharges are generally addressed in Section 7.7.

7.2 OBTAINING PERMIT COVERAGE

The Authority maintains coverage for industrial activities and industrial tenants under both the Industrial Permit and the Municipal Permit. . The Authority has elected to assume a lead role with regard to the Industrial Permit. Airport tenants that conduct industrial activities are also subject to the requirements of the Industrial Permit and must comply with the Authority direction regarding storm water management at SAN. This approach (1) conforms to federal regulations, (2) was the preferred option of the State Water Board, and (3) allows for implementation of consistent storm water pollution prevention measures throughout the entire airport site. This approach provides for consistency in the programs that the Authority has developed and implemented to comply with the requirements of both the Industrial Permit and the Municipal Permit.

7.2.1 OBTAINING INDUSTRIAL PERMIT COVERAGE

The Authority will obtain regulatory coverage under the Industrial Permit through filing of an NOI through SMARTS no later than July 1, 2015. All required PRDs for the NOI will be certified and submitted by the Vice President of Development, Jeffrey Woodson, as the Legally Responsible Person (LRP). The NOI submittal will include:

1) The NOI, signed Electronic Authorization Form, and signed certification statement

2) A site map (provided in Figure 3)

3) This document as the SWPPP

4) Annual fees for coverage (established through regulation adopted by the State Water Board and subject to change)

The complete requirements of the NOI are described in Attachment D of the Industrial Permit. All future documents related to the Industrial Permit required to be submitted via SMARTS will be certified and submitted by the Vice President of Development or his Duly Authorized Representative (DAR).

7.3 SWPPP AVAILABILITY AND IMPLEMENTATION

The SWPPP, as part of the SWMP, will be available to all Authority employees, tenants, contractors, and vendors during all hours of facility operation through Authority's internal electronic network (Intranet) and/or on the Authority's webpage. A paper copy of the SWPPP will be maintained in the Authority's EAD.

This SWPPP will be implemented beginning July 1, 2015.

7.4 POLLUTION PREVENTION TEAM

The Authority's Pollution Prevention Team is primarily composed of members of the Authority's EAD and FMD, as well as their designated outside consultants. A full list of staff responsible for implementation of the SWPPP is provided in Table 7-1. Figure 8 presents the Authority's organizational chart. The following key roles within the Authority perform essential roles in SWPPP implementation and monitoring:

- Vice President, Development: The Vice President of Development is the LRP for implementation of the SWPPP. The LRP will certify and submit the PRDs for NOI coverage on the SMARTS website.

- Director, Environmental Affairs Department: The Director of the Authority's EAD will serve as the DAR. The DAR is responsible for signing and certifying all permit-related documents other than the PRDs, and for managing the day-to-day implementation of the SWPPP. In the event of the DAR's extended absence, the next most senior individual within the EAD will manage the industrial storm water program and be designated DAR by the LRP.

- Manager, Environmental Affairs Department: The EAD Manager is responsible for managing the day-to-day implementation of the SWPPP. Duties include conducting meetings with and training of appropriate stakeholders, ensuring proper implementation of required BMPs, directing staff and consultants in performance of wet and dry season monitoring and wet weather storm water sampling, overseeing annual facility inspections of all industrial areas and activities, preparing annual reports for submittal to the Regional Water Board, submitting monitoring results onto SMARTS, and revising and updating the SWMP as necessary.

- Staff, Environmental Affairs Department: All members of the EAD, from Senior Environmental Specialist to Environmental Assistant level, are responsible for implementation of the SWPPP. Staff-level individuals are responsible for performing inspections, implementing training programs, observing and recording daily implementation of required BMPs, requiring corrective actions for BMP deficiencies, developing or directing the development of reports, and enforcing BMP implementation. All members of the EAD are tasked to recognize and report tenant and staff failures to implement required BMPs.

- Facilities Management Department: The Authority's FMD is responsible for implementing minimum BMPs in common areas and Authority property not otherwise covered under another leasehold. Department supervisors are responsible for remediating any BMP deficiencies identified in common use and Authority areas during inspections and recording corrective actions taken.

- Airside Operations, Security, and Public Safety Department: The Authority Airside Operations (Air Ops) Department is generally the first point of contact for tenant and staff reporting of spills. Air Ops generates a daily log of any reported spills, leaks, and other actual and potential discharges; this log is included in the Authority's Web-based database so that the records are immediately available upon request.

- Tenant Environmental Program Managers: All tenants are required to implement minimum BMPs to prevent storm water pollution as a condition of their leasehold. Tenant environmental managers will be responsible for remediating any BMP deficiencies identified in their tenant areas during inspections and for recording corrective actions taken. The managers in charge of environmental program implementation are identified in the Tenant Summary Sheets in Appendix E.

- Facilities Development and Airport Planning Departments: These two departments are generally responsible for project planning, design, and approval, with assistance as necessary from the EAD. Facilities Development and Airport Planning will be responsible for the design of Industrial Permit-compliant treatment control BMPs.

- Terminal Operations and Business and Financial Management Departments: These two departments, in collaboration with EAD and Air Ops, are generally responsible for helping tenants properly implement the BMPs required in this SWMP. Both departments may be consulted if escalated enforcement of BMPs is required.

Table 7-1. Authority Key Personnel Responsible for SWMP Implementation

Department	Title	Responsible Individual
Development	Vice President	Jeffrey Woodson
Environmental Affairs	Director	Paul Manasjan
	Manager	Richard Gilb
Facilities Management	Director	Murray Bauer
	Maintenance Supervisor	Hillary Gish
		Anthony Esposito
Airside Operations, Security, and Public Safety	Director	George Condon
	Airside Operations Duty Manager	David Billings
		Mario Caldera
		Mark Chewiwie
		Steve Duboce
		Mark Hander
		Rodrigo Rendon
		Wayne Thomas
		David Van Bibber
	Manager, Emergency Preparedness and Public Safety	Susie Preiser
	Manager, Airside Operations	Dean Robbins
	Manager, Aviation Security, and Law Enforcement	Clint Welch
Facilities Development	Director	Iraj Ghaemi
	Program Manager	Michael Tilley
Airport Planning	Director	Keith Wilschetz
	Manager	Ted Anasis
		Angela Jamison
Terminal Operations	Manager	Amiel Porta
	Terminal Operations Coordinator	Elsie Gonzalez
		Scott La Rocco
Business and Financial Management	Director	Michael Sears
	Senior Manager	Troy Ann Leech
	Real Estate Manager	Susan Diekman
		Mary Erickson
		Traci Kuchta
		Eric Podnieks

7.5 STORM WATER AND AUTHORIZED NON-STORM WATER DISCHARGE REQUIREMENTS

In general terms, any discharge of materials other than storm water and certain, authorized, non-storm water is prohibited under both the Industrial Permit and the Municipal Permit. Section 7.5.1 discusses these discharge prohibitions in more detail, and Section 7.5.2 lists those classes of non-storm water discharges that are authorized. Storm water and authorized non-storm water discharges are subject to effluent limitations. These limitations can be either technology-based, requiring the discharger to implement a certain minimum technology to control pollutants, or water-quality-based, requiring discharges to meet either numeric or narrative receiving water quality standards. Technology-based effluent limitations are discussed in Section 7.5.3. Receiving water limitations and water quality standards are discussed in Section 7.5.4.

7.5.1 DISCHARGE PROHIBITIONS

All discharges of storm water to San Diego Bay are prohibited, except as authorized by the Industrial Permit or Municipal Permit and outlined in this document.

All non-storm water discharges, except for those authorized by the Industrial Permit and the Municipal Permit as outlined in this document, are effectively prohibited.

Both storm water and authorized non-storm water discharges are subject to the following restrictions:

- Discharges that cause or threaten to cause pollution, contamination, or nuisance as defined in Section 13050 of the Water Code are prohibited.
- Discharges that violate discharge prohibitions contained in the Water Quality Control Plan for the Basin Plan are prohibited.
- Discharges that contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Sections 110.6, 117.21, or 302.6 are prohibited.

7.5.2 AUTHORIZED INDUSTRIAL NON-STORM WATER DISCHARGES

The Municipal Permit effectively prohibits all non-storm water discharges through implementation of the Illicit Discharge Detection and Elimination Program discussed in Section 3.5 of this SWMP, unless they are authorized through another NPDES permit. Because the Authority is permitted under both the Industrial Permit and the Municipal Permit, the following non-storm water discharges are authorized, provided that appropriate BMPs are in place and the discharges are not an identified source of pollutants to receiving waters:

- Fire prevention system flushing/testing
- Potable water sources and system flushing/testing
- Drinking water fountains
- Air conditioning, refrigeration and compressor condensate
- Landscape irrigation, provided that integrated pest management has been utilized
- Uncontaminated natural springs, groundwater, and foundation and footing drainage

- Tidal intrusion
- Incidental windblown mist from cooling towers

Further discussion of authorized non-storm water discharges and their associated BMPs is provided in Section 3.0.

7.5.3 INDUSTRIAL EFFLUENT LIMITATIONS

The Authority meets the Industrial Permit Section V effluent limitations by employing BMPs that meet the BAT and BCT standard, as appropriate. The BAT standard generally applies to industrial discharges of toxic and nonconventional pollutants, while the BCT standard applies to conventional pollutants including biological oxygen demand (BOD), total suspended solids (TSS), fecal coliform, pH, and oil and grease. The Authority's required BMPs are further outlined in Section 7.7 and in Appendix B.

The Authority is not subject to storm water ELGs in Subchapter N because no pavement deicing occurs at SAN and because the Authority is not a new discharger.

Additionally, there are no TMDLs applicable to the Authority so the Authority is not subject to any TMDL specific requirements. If the Authority does become named in a TMDL, this SWPPP will be amended at that time to incorporate requirements of the TMDL.

7.5.4 RECEIVING WATER LIMITATIONS FOR INDUSTRIAL DISCHARGES

The Authority's storm water discharges and NSWDs will not cause or contribute to an exceedance of any applicable water quality standard in San Diego Bay, including standards set forth in the Basin Plan. Industrial storm water discharges and NSWDs will not adversely affect human health or the environment, or contain pollutants in quantities that threaten to cause pollution or public nuisance.

7.6 TRAINING QUALIFICATIONS

Per 2014 Industrial Permit requirements, the Authority will designate a qualified individual, known as a QISP, to complete an approved State Water Board training course and register as a QISP in SMARTS, once QISP training has been developed by the State Water Board and the Authority enters Level 1 discharger status, as described in Section 7.9. The QISP will be designated to train appropriate team members and to perform the duties related to ERAs, as described in Section 7.9. The SWPPP will be modified to reflect this designation. If the Authority remains in baseline status (i.e., no NAL exceedances), additional training by a QISP will not be required.

All engineering work subject to the Professional Engineer's Act (California Business and Professions Code Sections 6700-6799) and required by the Industrial Permit will be performed by a California licensed professional engineer. A professional engineer will certify hydrologic calculations for any new volume-based treatment control BMPs installed at SAN after July 1, 2015, per Section X.H.6.a of the Industrial Permit.

7.7 STORM WATER POLLUTION PREVENTION PLAN COMPONENTS

7.7.1 BACKGROUND

As an industrial discharger, the Authority has developed Section 7.0, along with other associated sections or appendices of the SWMP, as its SWPPP. Per Section X.A of the Industrial Permit, the Authority's SWPPP contains the following elements:

- Facility name and contact information
- Site map
- List of industrial materials
- Description of potential pollutant sources
- Assessment of potential pollutant sources
- Minimum BMPs
- Advanced BMPs, if applicable
- Monitoring Implementation Plan
- Annual Evaluation
- Date that the SWPPP was initially prepared and the date of each SWPPP amendment

A checklist of required SWPPP elements and their locations in this SWMP is provided in Appendix A. This section of the SWMP contains most of the required SWPPP elements.

The Municipal Permit also requires identification and description of existing industrial facilities or areas as part of the Authority's JRMP. Most of the elements required under the Municipal Permit are already provided as a requirement of the SWPPP under the Industrial Permit. Specifically, Provision E.5.a of the Municipal Permit states that the JRMP must include the following elements for industrial facilities:

- Name and location, including hydrologic subarea and address, if applicable
- Status of facility or area as active or inactive
- Identification if a business is a mobile business
- SIC code or NAICS code, if applicable
- Industrial Permit NOI and/or WDID number, if applicable
- Identification of pollutants generated and potentially generated by the facility or area
- Whether the facility or area is adjacent to an ESA

- Whether the facility or area is tributary to and within the same hydrologic subarea as a water body segment listed as impaired on the 303(d) list and generates pollutants for which the water body segment is impaired

- An annually updated map showing the location of inventoried existing development, watershed boundaries, and water bodies

Table 7-4 presents an inventory of industrial sites and sources at SAN. Based on this inventory of existing facilities, the Municipal Permit calls for the prioritization of known or suspected sources of pollutants contributing to the highest or focused priority water quality conditions identified in the San Diego Bay WQIP. The WQIP identifies metals as the focused priority water quality condition in the Authority jurisdiction, and both Industrial Tenant Operational Areas and Industrial Airport Operational Areas (i.e., runways and taxiways) are identified as high-priority sources of metals (Responsible Parties, 2015). Strategies identified in the WQIP to address industrial sources of metals include enhanced tenant inspections, optimization of runway rubber removal, and increased frequency of sweeping runways, taxiways, and ramp areas.

Per Provision E.1.a of the Municipal Permit, the Authority must establish legal authority to control the contribution of pollutants in discharges from industrial facilities within its jurisdiction, including those with existing coverage under the Industrial Permit. The Authority has legal authority over all land uses within its jurisdiction through property leases or use agreements. A complete discussion of the Authority's legal authority is provided in Section 2.2 of this SWMP.

7.7.2 FACILITY INFORMATION

SAN is owned and operated by the San Diego County Regional Airport Authority. The primary economic activity of SAN is as an airport; therefore the primary SIC Code is 4581. Other secondary SIC codes associated with the activities of SAN and its industrial tenants include the following:

- 4512 Air Transportation, Scheduled

- 4513 Air Courier Services

- 4522 Air Transportation, Nonscheduled

- 5171 Petroleum Bulk Stations and Terminals

SAN covers approximately 663 acres and is located in the Pueblo Hydrologic Unit (HU 908.00), San Diego Mesa Hydrologic Area (HA 908.20), and Lindbergh Hydrologic Sub-Area (HSA 908.21). Storm water from SAN drains to San Diego Bay, which is designated as an ESA, with portions contained in the 303(d) list. Certain areas of San Diego Bay are subject to TMDLs; however, SAN does not directly drain to these areas. A complete discussion of the facility drainage is provided in Section 7.7.2.2 of this plan, and also can be viewed on the site map (Figure 3).

Table 7-2 provides the basic facility information for SAN, including name, address, contact information, SIC code, hydrologic subarea, and WDID number.

Table 7-2. SAN Industrial Facility and Facility Discharge Information

Industrial Facility Information	
Facility Name	San Diego International Airport (SAN)
Facility Operator	San Diego County Regional Airport Authority
Facility Address	3225 N. Harbor Dr., San Diego, CA 92101
Facility Mailing Address	PO Box 82776, San Diego, CA 92138
Latitude	32.7337
Longitude	-117.1933
Legally Responsible Person (LRP)	Jeffrey Woodson, Vice President, Development
Facility Contact	Richard Gilb
Contact Email	Rgilb@san.org
Contact Telephone	(619) 400-2790
Scheduled Facility Operating Hours	6:30 a.m.-11:30 p.m., 365 days per year
Industrial Facility Discharge Information	
Primary Standard Industrial Classification (SIC) Code	4581 (Airports, Flying Fields, and Airport Terminal Services)
Waste Discharger Identification (WDID)	9 37I018035
Hydrologic Unit (HU)	908 (Pueblo)
Hydrologic Sub Area (HSA)	908.21 (Lindbergh)
Receiving Water Body	San Diego Bay
Facility Status	Active
Mobile Discharger?	No
Discharges to Environmentally Sensitive Area (ESA)?	Yes (San Diego Bay)

7.7.2.1 Facility Operations

The primary operation of SAN is as a domestic and international commercial airport. Airport operations at SAN currently include two main airline terminals, an FBO facility, one main runway area, taxiways, and ancillary support facilities (including an aircraft fuel storage facility, a remote fueling facility, air cargo facilities, ground support facilities and operations areas), an airplane wash-rack, overnight airplane parking areas, and the ARFF.

7.7.2.2 Descriptions of Drainage Areas and Existing Drainage

The storm water conveyance system at SAN consists of 15 drainage basins. To be consistent with historical naming conventions at the airport, these drainage basins are named as Basins 1 through 15, with only small portions of Basin 2 owned by the Authority. Of the 15 basins at SAN, 9 contain industrial activities, namely Basins 1, 3, 5, 6, 7, 8, 12, 13, and 15. A full description of the drainage areas is provided in Section 1.4.

Storm water from SAN drains to San Diego Bay, portions of which are currently 303(d) listed for impacts due to PCBs, PAHs, chlordane, lindane, indicator bacteria, and metals, as well as benthic community effects and sediment toxicity. The 2010 303(d) list includes copper as a pollutant impacting water quality in the marinas along Harbor Island and bacteria impacting water quality at Spanish Landing. Runoff from the airport commingles with runoff from other sources and discharges into the waters along Harbor Island, including near Spanish Landing. San Diego Bay in its entirety is also 303(d) listed as impacted by PCBs.

There are two TMDLs established in San Diego Bay, namely dissolved copper impacting Shelter Island Yacht Basin and indicator bacteria impacting Shelter Island Shoreline Park. Runoff from the airport does not discharge in close proximity to these areas of San Diego Bay.

There are four Toxic Hot Spots in San Diego Bay, one of which (namely, the Laurel Hawthorn Central Embayment [LHE]) is located near outfalls associated with runoff commingled from SAN and other sources. A technical investigation prompted by an Investigative Order issued by the Regional Water Board (Order No. R9-2014-2007) is currently being conducted to determine the source of pollution in this area. The State Water Board has designated San Diego Bay in its entirety as having RARE beneficial use in the Basin Plan (2011). Both the Sweetwater Marsh National Wildlife Refuge and the South Bay Unit of the San Diego National Wildlife Refuge are considered ASBS, but neither is within close proximity to SAN.

7.7.2.3 Storm Water Run-On from Offsite Areas and Non-Industrial Areas

Basins 1, 3, 4, 5, 6, 8 and 13 have been identified as potentially receiving run-on from offsite areas. Basins 1, 3, and 4 receive storm water run-on from adjacent properties to the south and east of SAN. Basins 5, 6, 8, and 13 receive storm water run-on from adjacent properties to the north and west of SAN.

There are no identified areas of run-on from non-industrial drainage basins within SAN to industrial drainage basins. There are, however, identified areas of run-on from non-industrial source areas within the industrial drainage basins. Basins 3, 4, 5, 6, 8, 12, and 13 contain areas of natural soil and fill that are exposed to rainwater. Runoff from these areas may reach the storm drains in the corresponding drainage areas. These areas are outlined in Figure 3. Basins 3, 6, 7, 8, and 15 contain non-industrial roof runoff that comingles with industrial runoff before reaching the storm drains. Basins 1, 3, 4, 5, 6, 8, 12, 13, and 15 contain portions of the vehicle perimeter road or vehicle parking areas; runoff from these areas may comingle with industrial runoff. As of spring 2015, there is active construction in Basins 1, 3, 5, and 6. Construction runoff is addressed in Section 5.0 of this SWMP.

7.7.2.4 Geology and Groundwater

Approximately 90 percent of SAN property is covered by impervious surfaces consisting mainly of buildings and paved areas. The soils underlying SAN are generally undifferentiated bay deposits and hydraulic fill material originating from San Diego Bay. The soil is described as undetermined in the Soil Hydrologic Groups map in the San Diego County Hydrology Manual. The elevation of SAN ranges from approximately 10 to 25 feet above mean sea level.

7.7.3 POTENTIAL POLLUTANT SOURCES

Entities conducting industrial activities as listed in Attachment A of the Industrial Permit are subject to the Industrial Permit and Provision E.5 of the Municipal Permit. There are 32 tenants conducting industrial activities, plus the Authority itself as operator of the airport, for a total of 33 entities conducting industrial activities that could contribute a significant pollutant load to the storm drain system. These 33 entities and the type of industrial activity into which they have been categorized are listed in Table 7-3 (Note: the Authority includes the ARFF facility, which is the airport's firefighting facility and is indicated separately to assign its particular activity). The location of these 33 entities on the airport is shown in Figure 3 and Figures 5 through 8.

The Authority site maps shown in Figure 3, and Figures 5 through 8 depict the facility boundaries; the outline of all storm water drainage basins within the facility boundaries; portions of the drainage basins impacted by run-on from surrounding areas; direction of flow within each drainage basin; nearby surface water bodies; and areas of soil erosion. The site maps identify San Diego Bay as the receiving water into which storm water from SAN discharges. The site maps also show the storm water drainage system at the airport; associated inlets and points of discharge; any structural control measures (e.g., OWSs); compliance sampling locations; an outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, and other roofed structures; locations where materials are directly exposed to precipitation; the locations where significant spills or leaks have occurred; areas of industrial activity, including the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, and cleaning and rinsing areas; and other areas of industrial activity that are potential pollutant sources.

The Municipal Permit requires that Copermittees identify and prioritize their industrial sources of pollutants contributing to the focused priority water quality conditions in the Authority's jurisdiction. The process implemented by the Authority for determining the potential threat of those operations conducting industrial activities is described Section 7.7.3.1. Per the WQIP source prioritization, all Industrial Tenant Operational Areas and Industrial Airport Operational Areas are designated as high-priority sources (Responsible Parties, 2015).

7.7.3.1 Description of Potential Pollutant Sources

Under the Industrial Permit, commercial passenger air carriers, cargo air carriers, FBOs (of which there is only one at SAN), fuel vendors, aircraft refuelers, aircraft and airport service and maintenance providers, and all airfield/airport related activities are defined as industrial operations. The Authority used information gained from site visits, annual inspections, and storm water sampling results, including information regarding industrial materials handled and stored at the airport, descriptions of those industrial activities that may be sources of pollutants, and pollutants detected in prior sampling events, to determine their potential pollutant sources and areas. This information is presented in Tables 7-3 and 7-4.

Using the information on hand, the Authority has determined that all the activities listed in Tables 7-3 and 7-4, and therefore all 33 entities conducting industrial activities at SAN, are considered high-priority threats to water quality.

The Municipal Permit requires the Authority to maintain an inventory of industrial and commercial sites and sources and to update this inventory annually. These industrial and commercial sites and sources were prioritized as part of the WQIP process. The results of the commercial prioritization are presented in Section 6.0. The results of the current prioritization for industrial activities are included in Tables 7-3 and 7-4, as discussed above. Some of the entities conduct multiple industrial activities and, therefore, may be listed more than once in Table 7-3. Table 7-4 provides the more detailed minimum information required by the Municipal Permit for each industrial site or source, specifically name; address; pollutants potentially generated by the site/source (and identification of whether the site/source is tributary to a 303(d)-listed water body segment and generates pollutants for which the water body segment is impaired); and a narrative description, including SIC codes that best reflect the principal products or services provided by each site/source/facility. The Municipal Permit also requires identification of mobile businesses, and whether businesses are active or inactive; all 33 industrial entities are active and stationary.

Table 7-3. Overview of Inventory of Industrial Sites/Sources

Land Use and Activity	Water Quality Threat Priority	Entity
Passenger Carrier	High	Air Canada Alaska Airlines Allegiant American Airlines British Airways Delta Airlines Envoy (previously American Eagle) Frontier Airlines Hawaiian Airlines Japan Airlines (JAL) JetBlue Airways SeaPort Airlines SkyWest Airlines Southwest Airlines Spirit Airlines Sun Country Airlines United Airlines US Airways Virgin America Volaris West Jet
Cargo Carrier	High	DHL Airways Federal Express Corporation United Parcel Service Co. (UPS)
Cargo Handling	High	Bradford
Corporate General Aviation/ Fixed-Base Operations	High	Landmark Aviation
Fuel Vendor	High	Allied Aviation Services Landmark Aviation
Aircraft Fueler	High	Aircraft Service International Group, Inc. (ASIG) Landmark Aviation
Aircraft and General Services Equipment and Maintenance	High	American Airlines Integrated Airline Services (IAS) United Airlines US Airways
Jetway Maintenance	High	Elite Line Services (ELS)[1] Siemens[2]
Airport Terminal Services	High	Flagship
Fire Fighting	High	Aircraft Rescue and Firefighting Facility (ARFF)
Airport	High	Authority

1. Also maintains baggage claim belts in Terminal T1, T2E and T2W baggage claim.
2. Also Maintains baggage claim belts in T2 Green Build Area.

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Table 7-4. Inventory of Industrial Sites/Sources

Facility Name	Address Number	Suite Number	Street Name	City	State	Zip Code	Hydro. Area	SIC Code	NAICS Code	Principal Products/ Services	Bacteria	Gross Pollutants	Metals	Nutrients	Oil & Grease	Organics	Pesticides	Sediment	Tributary	Threat
Air Canada	3665	#223	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Alaska	3665	#228	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Allegiant	3707	T2E	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Allied Aviation	3698	#C	Pacific Hwy.	San Diego	CA	92101	908.0-908.21	5171	424710	Fuel Storage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
American	3707	#103	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
ARFF	3698		Pacific Hwy.	San Diego	CA	92102	908.0-908.21	9224	922160	Airport Rescue & Fire Fighting	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
ASIG	2340		Stillwater Rd.	San Diego	CA	92101	908.0-908.21	4581	488190	Fueling Services	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Bradford	2247		West Washington St.	San Diego	CA	92101	908.0-908.21	4581	488190	Cargo Handling	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes
British Airways	3707	#117	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Delta	3835	#107	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
DHL	225		Washington St.	San Diego	CA	92101	908.0-908.21	4513	492110	Air & Ground Freight	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
ELS	3707	#121	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4581	488111	Maintenance (Boarding Bridges & Conveyors)	No	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Envoy	3225	#109	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
FedEx	2221		West Washington St.	San Diego	CA	92110	908.0-908.21	4513	492110	Cargo Handling	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
FlagShip	3835	#130	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4581	561720	Janitorial	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Frontier	3707	#105	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Hawaiian	3707	T2	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
IAS	3225		North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4513	492110	Maintenance (Aircraft & GSE)	No	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes
JAL	3707	#123	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512	481111	Passenger Carrier	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes

Table 7-4. Inventory of Industrial Sites/Sources (continued)

Facility Name	Address Number	Suite Number	Street Name	City	State	Zip Code	Hydro. Area	SIC Code	NAICS Code	Principal Products/ Services	Bacteria	Gross Pollutants	Metals	Nutrients	Oil & Grease	Organics	Pesticides	Sediment	Tributary	Threat
Jet Blue	3835	#108	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Landmark Aviation	2904		Pacific Hwy.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Corporate General Aviation	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Authority	3835		North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4581	488111	Facility Maintenance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SeaPort	3225		North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512	481111	Passenger Carrier	No	No	Yes	No	Yes	No	No	No	Yes	Yes
Siemens	3225		North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4581	488111	Facility Maintenance	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
SkyWest	3225	#104	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Southwest	3665	T1	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Spirit	3707	#227	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4581	481111, 488111	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Sun Country	3835	#107	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
United	3855	#115	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
UPS	3140	#G105	E Jurupa St.	Ontario	CA	91761	908.0-908.21	4513	492110	Cargo Handling	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
U.S. Airways	3835	#128	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Virgin America	3707	#104	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
Volaris	3225		North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4581	481111, 488111	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes
West Jet	3707	T2E	North Harbor Dr.	San Diego	CA	92101	908.0-908.21	4512, 4522	481111, 487990	Passenger Carrier	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes

INDUSTRIAL MATERIALS AS POTENTIAL POLLUTANT SOURCES

Industrial materials associated with industrial activities at SAN that could be potential pollutants consist primarily of metals, petroleum products (such as fuels, oil, and greases), solvents, soap/cleaning fluids, and trash. Lesser amounts of other potential pollutants also present at the airport include lavatory chemicals and waste, paints, used batteries and battery acid, anti-freeze, hazardous wastes (mostly oils), metals, deicing chemicals, herbicides and pesticides, adhesives, rust preventers, AFFF and other fire suppression chemicals, and sealants (see list below for more details). These pollutants can be transported to the storm water system either as direct spills, from contact with rainfall runoff, or from apron or ramp scrubbing, if not completely contained. Appendix E contains a list of potential pollutants for each industrial tenant. Also described in Appendix E are material storage areas, lists of materials stored in quantities over 55 gallons, and shipping and receiving information if available.

In general, the industrial materials that could be potential sources of pollutants at SAN include the following:

- Acetic acid
- Acetone
- Adhesives
- Antifreeze
- Asphalt debris
- Battery acid
- Brake cleaners
- Brake fluid
- Bulk auto gas and diesel
- Carburetor cleaner
- Caulking
- Cleaning solutions
- Coolant
- Deicing/anti-icing fluids
- Degreasers (citrus based)
- Diesel
- Dumpster wastes
- Fertilizers
- Firefighting foam
- Fuel
- Fuel hydraulic fluids
- Galvanizing compound
- Herbicides
- Hydraulic fluids
- Hydraulic fluid (Skydrol)
- Jet fuel
- Lavatory chemicals
- Landscape waste
- Lavatory wastes
- Lubricants
- Metals
- Oil and grease
- Paints
- Pesticides
- Purple K (fire suppression chemical)
- Radioactive goods
- Recyclable paper/cardboard
- Rubber particulates
- Rust preventer
- Sealant
- Sediment
- Solvents
- Sump fuel
- Transmission fluid
- Trash
- Turpentine

INDUSTRIAL ACTIVITIES AS POTENTIAL POLLUTANT SOURCES

The industrial activities, in and of themselves, conducted by both the Authority and tenants have the potential to impact water quality. Information gathered as described above indicates that the potential pollutant generating activities/operations consist primarily of specific airport-industry processes, material handling and storage, and spills and leaks. To a lesser extent, pollutants may also potentially result from dust and particulate generating activities, soil erosion, and non-storm water discharges. There may be pollutant sources related to commercial activities conducted within industrial drainage basins, such as commercial

parking lots management and vehicle storage, food service, and janitorial service. These commercial activities are addressed in Section 6.0 of this SWMP.

Aircraft Deicing/Anti-icing

Deicing and anti-icing chemicals are generally used on aircraft to eliminate or minimize the ice buildup on the wings and fuselage of aircraft. These activities are fairly uncommon at SAN. Only one tenant conducts deicing and another has deicing fluid but has not used it as of Fall 2014. Deicing can be performed using deicing fluids (typically, ethylene glycol and/or propylene glycol), water, or air. The deicing fluids are typically stored in drums or large plastic containers. Deicing fluid is generally applied by spraying the aircraft with a mixture of (hot) water and a glycol-based fluid. The spray drains from the aircraft onto the ramp area and could have the potential to result in an illicit discharge or transport other surface contaminants, thereby impacting storm water quality. Airlines typically use scrubbers, vacuums, or absorbents to cleanup and properly dispose of residual chemicals. Mixing of deicing chemicals takes place in the SAN triturator, which drains to the sanitary sewer.

Facilities performing deicing activities with aircraft deicing fluids may be subject to the requirements and storm water ELGs outlined in Subchapter N. ELGs for existing airports apply only to airports conducting pavement deicing. However, neither the Authority nor any industrial tenants at SAN perform airfield pavement deicing. Therefore, SAN is not currently subject to the Subchapter N ELGs.

Because deicing is fairly uncommon at SAN, the activity is not considered a significant non-storm water threat to water quality. On average, deicing is performed on one to two aircraft per day during the seven-month "deicing season" from October to April. The Authority does require the use of BMPs to address deicing activities. Deicing activities are authorized on the paved ramp in areas that are (1) sufficiently far enough from the nearest storm drains to allow for capture and cleanup of the residual deicing fluids whenever chemical deicers are used; (2) sufficiently far enough from the nearest storm drains to allow for the liquid to be captured and cleaned up to prevent the transport of surface contaminants, whenever air or water are used as deicing agents; or (3) sufficiently far enough from the nearest storm drains to allow for the water to evaporate prior to reaching the storm drain system, whenever air or water are used as deicing agents. These areas are depicted in the figure attached to the Aircraft Deicing/Anti-icing BMP (SC05) description in Appendix B. In general, BMP SC05 can be implemented effectively at the gates, although pushing an aircraft back away from the terminal on the ramp area around Terminal 1 allows for additional distance between the deicing activity and the storm drain system. Tenants are responsible for properly implementing BMP SC05 at all times, including during inclement weather.

Aircraft, Vehicle, and Equipment Fueling

Fueling activities occur on a daily basis. Aircraft fueling activities are conducted on paved surfaces such as concrete ramps or at the gates. Approximately 450,000 gallons of jet fuel are brought to Terminals 1 and 2 ramp areas daily by tanker and loaded by positive lock hose into aircraft. Vehicle and ground support equipment (GSE) fueling is conducted at the gates or in maintenance areas. For the Authority, fueling activities also occur at all generators, light towers, and truck bays in the ARFF facility. The industrial materials or potential pollutants involved in these activities are jet fuel, diesel fuel, and gasoline. Fuel trucks are refilled at the RFF or FSF. There is a sloped spill containment area leading to a 12,000-gallon wastewater sump and above-ground OWS at the RFF and a 12,000-gallon OWS plus an 8,000-gallon holding tank at the FSF. The four FBO aircraft refueling trucks take on fuel at the RFF or FSF, and perform fueling operations onsite at the FBO. Most tenant vehicles or equipment are fueled onsite, although some perform vehicle or equipment fueling offsite. Fuel spills are contained by absorbent materials, inflatable pools, or facility-specific spill containment areas/OWSs/tanks (for the RFF and FSF). The Authority procedures for spill reporting and response are outlined in Sections 3.5.3.2 and 3.5.3.3. Tenants may also have their own environmental response contractors for spill response. The concrete pad at the loading islands in the RFF is steam cleaned periodically and the discharge enters the wastewater holding tank.

Aircraft, Vehicle, and Equipment Maintenance

The majority of industrial tenants at SAN maintain aircraft, equipment, and/or vehicles, although no major maintenance of aircraft is performed onsite. Maintenance activities are performed both indoors and outdoors. Based on the nature of maintenance activities at airports, materials such as lubricating oils, hydraulic oils, degreasers, and other cleaning products are commonly used during maintenance activities. At tenant and Authority waste accumulation areas, waste oils, lubricants, oil filters, antifreeze, transmission fluids, and used absorbent materials are stored prior to transport to recycling or waste disposal facilities. Small leaks or spills of some of these fluids can occur during maintenance activities. Tenants respond to these leaks and spills by using absorbent socks, dry absorbent materials, rags, and mops, and requests for service by the Authority's portable truck-mounted vacuum. Many tenants use drip pans during maintenance activities in areas where the use of a drip pan is unlikely to become FOD. Maintenance activities occur on a daily basis, but tend to involve minor maintenance and industrial materials in small quantities. Where possible, maintenance activities are conducted indoors or under cover, and generally represent a low potential for significant pollutant discharge.

Some tenants have floor drains located in maintenance areas. At some of these facilities, the runoff entering the floor drain is conveyed to an OWS before entering the sanitary sewer system. At a few facilities, the runoff that discharges through the floor drains discharges directly to the sanitary sewer. Tenants are required to confirm that there are no illicit connections from these drains to the storm drain system at their leasehold.

Electric Vehicle Charging and Maintenance

Electric vehicle charging and maintenance represents a relatively new activity at SAN. The Authority has formally committed to reducing greenhouse gas emissions, with a goal of converting all airside ground support equipment to alternative and cleaner fuels by 2015 (San Diego County Regional Airport Authority, 2013). Multiple tenants utilize electric vehicles as part of their daily operations. These tenants charge the vehicles onsite. During charging and maintenance, the batteries of electric vehicles have the potential to leak or spill materials such as acid or water containing heavy metals, particularly if the batteries are over-charged or over-filled with electrolyte solution. Tenants are responsible for maintaining good housekeeping at charging stations, monitoring for spills and leaks, and responding to spills and leaks by applying neutralizing materials (e.g., sodium bicarbonate/baking soda), or use dry absorbent materials, absorbent socks, rags, and mops, and requests for service by the Authority's portable truck-mounted vacuum. The Authority also recommends that tenants utilize sealed or maintenance free batteries whenever economically feasible. Charging occurs daily in many tenant areas, but generally represents a low potential for significant pollutant discharge because of the small volume of most leaks and spills.

Aircraft, Vehicle, and Equipment Washing

Several tenants at SAN conduct aircraft, vehicle, and equipment washing, with many using dry methods for cleaning the aircraft and others using water. In all but one instance, as described below, all aircraft, vehicles, and equipment washing activity conducted at SAN must be authorized in writing by the Authority EAD. To obtain approval, the EAD requires the submittal of a wash plan that identifies the tenant contact details; location where washing is performed; location of storm drains; equipment to be used and where it will be stored; quantity of wastewater to be generated; frequency of washing activities; water collection/retrieval/reclamation processes; water disposal/elimination processes; chemicals to be used, if any, and the relevant MSDSs; washing methods employed; and BMPs used to control potential pollutants related to the activity. Where possible, tenants are encouraged to use reclaimed water from potable water flushing or air conditioning condensate as washwater. Upon satisfactory review of the wash plan, the Authority will provide written approval to conduct washing activities in the manner described in the plan. In general, the approved wash plans indicate that the washing is performed as far away from storm drains as possible and temporary berms are used to block off nearby storm drains to prevent runoff to the storm drain system. Wash water is then vacuumed up and properly disposed of either through the Authority's dewatering bin (where solids are removed) into the sanitary sewer connection at the main waste disposal site in Basin 8, or at the Authority wash rack, also in Basin 8 (see Figure F-1). Any equipment degreasing is conducted indoors and

washing activities are prohibited in areas that do not provide a wash rack, OWS, or area to deploy proper containment. The lone exception to obtaining this approval involves the use of properly designed wash rack connected to a dead end sump and/or the sanitary sewer. Two wash racks at SAN are leased to tenants. One is an open-air facility designed for vehicles and the other is an open-air facility designed specifically for washing aircraft. A third wash rack is operated by the Authority itself, and can be used for tenant and Authority vehicles and equipment washing. The two tenant wash racks collect the wash water runoff and then discharge it to the sanitary sewer system. The Authority wash rack uses a closed loop water recycle system. All three wash racks are used to wash equipment other than vehicles and aircraft. In light of 2015 drought conditions, tenants are required to use a hand-held hose with positive shut off nozzle to wash vehicles. Washing of vehicles, aircraft, and equipment outside of the Authority wash rack is restricted to the hours of 4pm to 10am from November 1 to May 31 and 6pm to 10am from June 1 to October 31.

Outdoor Washdown/Sweeping

General Outdoor Washdown/Sweeping: Atmospheric deposition, vehicle and aircraft use and emissions, breakdown of asphalt and concrete surfaces, and peeling or crumbling paint from structures and runway surfaces can all introduce particulates into the storm drain system at SAN. The physical removal of particulates and attached fine pollutant particles (in particular heavy metals) from outdoor surfaces at SAN will prevent or eliminate the pollutant load that may be transferred to San Diego Bay. The Authority requires the use of the Outdoor Washdown and Sweeping BMP (SC12) in Appendix B to address pollutants associated with washing and sweeping activities. Aircraft and vehicle washing is discussed separately above and power washing is considered separately below.

Ramp Sweeping: The Authority conducts a sweeping program designed to reduce pollutant discharges to its MS4s from ramp and airfield industrial areas. The ramp sweeping program conducted by the Authority is further described in Section 7.7.3.1. This program differs from the Authority's road and parking facility sweeping programs described in Section 6.3. All ramp areas are swept at least once per week, and sometimes twice per week upon request by tenants using two regenerative air sweepers. Potential pollutant sources that can be mitigated by sweeping practices in ramp areas are trash and debris (FOD), sediment, particulates, and other associated pollutants such as metals. Loading and unloading of trash, cargo, and catering supplies from aircraft can lead to trash and debris on the ramp areas. Any uncovered dumpsters or trash cans can be potential sources of trash and debris, as well as littering by staff, tenants, or the public. All Authority staff and tenants are very much aware of the potential hazards of FOD at the airport, and conduct daily FOD walks to check for any trash, so the source from tenants and staff should be very minimal. Every individual working on the ramp is trained to immediately remove FOD when it is observed and to place it in covered FOD bins located in each tenant gate area and throughout the airport. Some tenants also perform manual sweeping of their operational areas. The Outdoor Washdown and Sweeping (SC12) and Housekeeping (SC18) BMPs are required to be implemented during ramp sweeping activities.

Power washing: Both the Authority and the airport janitorial services provider conduct power washing, the Authority on an as-needed basis and the janitorial services provider on a routine basis. Portions of the sidewalk areas in front of the terminals and the pedestrian bridges leading from the parking lots to the terminals are power washed by the janitorial services provider almost daily using high-pressure water only. Wastewater from power washing may contain and transport contaminants on the ground surface to the storm drain system, if not properly contained and collected. The primary pollutants associated with power washing at the airport are particulates and associated pollutants, trash, and debris. Both the Authority and the janitorial services provider use power-washing equipment designed to minimize the amount of water used and to capture all the wastewater. Non-potable air conditioning condensate is used for power washing, and washing is generally conducted between the hours of 11pm and 4am. To address the potential release or transport of pollutants during power-washing activities, the Authority requires the use of several BMPs in Appendix B, including the Non-Storm Water Management BMP (SC01), the Employee Training BMP (SC10), the Outdoor Washdown/Sweeping BMP (SC12), and the Housekeeping BMP (SC18).

Ramp Scrubbing: In addition to ramp-sweeping activities discussed above, the Authority also performs ramp scrubbing and power washing activities. CASQA guidance states that, "no currently available conventional sweeper is effective at removing oil and grease." As such, the Authority conducts an outdoor ramp-scrubbing program in the gate areas (and in the north ramp area when requested by Authority staff or tenants) designed to remove oil and grease, debris, and particulate matter (to which heavy metals may be adsorbed, or which may contain metals). The airport janitorial contractor uses either one of two 3,500 psi industrial pavement washers, or a pressure washing truck for ramp scrubbing. Both pieces of equipment are equipped with vacuum collection systems. The pressure washing truck also contains a reclamation system, for direct reuse of washwater. Oil and grease, fuels, hydraulic fluids, and other substances may leak onto the ramp from parked aircraft, vehicles, and equipment. An effective outdoor ramp-scrubbing program, in conjunction with the ramp sweeping program discussed above, can help to reduce the levels of these pollutants in storm water runoff from the airport. Following washing activities, the wash water is either directly reused or vacuumed and collected by the Authority's environmental contractor, who filters and reuses the water.

Runway Rubber Removal

On the runway, materials such as tire rubber, oil and grease, paint chips, jet fuel, and vehicle exhaust products can build up on a runway surface over time, causing a reduction in the pavement's surface friction. When the friction value falls below a specific level, safety may be compromised and maintenance must be performed. The buildup is generally removed using high-pressure water or specialized biodegradable detergents within a containment/recovery system. The detergent solution is not stored onsite. Only the amount needed is brought onsite during each rubber removal. To address the potential release or transport of pollutants during runway rubber removal activities, the Authority requires the use of the Runway Rubber Removal BMP (SC15) in Appendix B.

Pesticide/Herbicide Use

Currently, only one industrial tenant and the Authority use pesticides and/or herbicides. The company managing the FSF uses herbicides to control weeds. They store small quantities in small containers within secondary containment outdoors at the FSF. The Authority also stores a small amount in flammable material storage lockers at the runway generator area. The Authority's landscape contractor also utilizes pesticides for weed control. These pesticides are not stored on site. The use of pesticides and herbicides at the airport does not result in significant discharges to the ground. During rainfall events, pesticide and herbicide residuals that accumulate at the application sites can be washed into the storm drain system. However, based on the small quantities used at the airport, and the application of an integrated pest management system at SAN, this activity appears to present a low potential for impacting storm water discharge.

Shipping/Receiving Areas

The main shipping/receiving area is in Drainage Basin 6. Additional secondary shipping and receiving areas are in Drainage Basins 7, 8, and 12, as described in Section 1.4 and depicted in Figure 3 and Appendix B, Figure SC-06. The front of the main shipping and receiving area, the Central Receiving and Distribution Center (CRDC), is located in the northern portion of Drainage Basin 6 off of Pacific Coast Highway, where cargo and supplies are loaded and unloaded for the Authority and the various airlines and cargo carriers. The airport food service providers use loading/unloading areas at Terminal 1, Terminal 2 West and at the connection between the eastern and western halves of Terminal 2, where food, drink, and other catering supplies for the airport restaurants are delivered by truck. Equipment used for loading and unloading at the docks typically includes forklifts. Loading and unloading of aircraft occurs in Basins 1, 3, 6, 8, 12, and 15 using hydraulic lifting equipment. To address the potential release or transport of pollutants during loading and unloading activities, the Authority requires the use of the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B. The main loading and unloading areas are shown in the figure attached to the Material Loading/Unloading BMP description in Appendix B. Shipping and Receiving areas for each industrial tenant are listed in Appendix E.

MATERIAL HANDLING AND STORAGE AREAS AS POTENTIAL POLLUTANT SOURCES

Fuel, GSE, and Chemical Storage Areas

Tenants at SAN store varying quantities of chemicals and petroleum products (i.e., hydraulic fluids, gasoline, diesel, and jet fuels). Many tenants have indoor and outdoor storage areas to house these items. Chemicals, oils, and waste oils are typically stored in 55-gallon drums or smaller containers. Fuels are typically stored in underground or aboveground storage tanks, but some tenants who store only small quantities have 5-gallon fuel containers. Deicing fluids are stored in 55-gallon metal or plastic drums. Other materials such as cleaners, paints, and paint-related products are stored in smaller containers. Secondary containment may be required by law for certain hazardous materials, and the Authority requires the use of secondary containment in all chemical storage areas. Outdoor storage areas, if not adequately protected from contact with storm water, have the greatest potential to impact storm water. In these areas, the Authority requires implementation of the Outdoor Material Storage BMP (SC07), including the proper use of secondary containment and cover, whenever possible.

Fueling Facilities: The FSF and RFF contain several aboveground and underground storage tanks, as outlined in the description of Basin 6 in Section 1.4. Jet fuel is delivered to the two 1,000,000-gallon ASTs within a valved secondary containment area at the FSF via underground pipelines from the 10th Avenue Marine Terminal storage tanks. The facility can also receive jet fuel from commercial transport trucks at approximately 8,200 gallons per load. The fuel is off-loaded at the three dual-position unloading islands. The jet fuel tanks at the FSF and RFF are connected via an underground hydrant fueling system. Fueling is generally performed at SAN from fuel transfer trucks that load at the RFF. Loading of gasoline and diesel into cars and trucks takes place at various locations around the airport. The aircraft refueling trucks at the FBO are stored outdoors on the concrete ramp area at the FBO and are used to fuel general aviation aircraft and ground support equipment at the FBO. The emergency power generators at the airport are operated by the Authority and feature ASTs with fuel storage capacities ranging from 25 to 1,000 gallons. Currently at the airport, other UST fuel storage capacities range from 3,000 to 15,000 gallons, aircraft refueling trucks range in storage capacity from 1,200 to 15,000 gallons, and vehicle refueling trucks range in storage capacity from 300 to 2,200 gallons. ASTs and USTs are fitted with a combination of overfill protection, leak detection, and alarm systems to prevent spills, leaks, and discharges. All fuel delivery trucks or fueling areas must be equipped with spill kits. The loading/unloading areas are inspected on a regular basis to identify any leaks from fuel transfers. At the FSF, leaks from fuel transfers are directed to bermed, sloped, spill containment areas that are linked to the 12,000-gallon OWS. At the RFF, the four loading islands are sloped and bermed to direct any discharges to a 12,000-gallon underground wastewater holding tank. Fuel spills that occur in any other area of the airport must be cleaned immediately using dry methods to reduce the potential to impact storm water. The Authority procedures for spill reporting and response are outlined in Sections 3.5.3.2 and 3.5.3.3. Tenants may also have their own environmental response contractors for spill response. BMP SC03 covers Aircraft, Ground Vehicle, And Equipment Fueling and the attached figure in Appendix B outlines fueling areas.

Ground Support Equipment (GSE): Areas designated for the storage and maintenance of GSE are primarily located in Basin 7; however, parking of GSE occur throughout the other ramp areas. During rain events, any residues (fuel, oil, or grease) on the GSE under repair or leaks from the GSE are potential pollutant sources in storm water discharges and must be controlled by proper BMP implementation. The Authority requires frequent inspections and preventive maintenance of GSE to prevent leaks, the implementation of containment measures if leaks do occur, and the proper, timely disposal of obsolete equipment, among other BMPS, as described in the Aircraft, Ground Vehicle, and Equipment Maintenance BMP (SC02B) as well as the Electric Vehicle Maintenance BMP (SC02C).

Chemical/Materials Storage: Chemicals and other materials are stored in the GSE maintenance areas, around the gate areas, in the North Side “boneyard” area, at the FBO, at the FSF, in the cargo areas north of the north ramp, and near the runway generator area. The materials stored include hydraulic fluids, lubricants, oils and greases, antifreeze, paints, rust preventers, solvents, batteries, metals, lavatory chemicals, cleaning

solutions, deicing chemicals, pesticides, and herbicides. During rain events, any residues on chemical storage containers, or residuals from chemical spills or leaks in uncovered outdoor storage areas, are potential pollutant sources in storm water discharges. Facilities that include outdoor chemical and materials storage must have secondary containment and overhead coverage. Generally, only small quantities of these industrial materials are stored at SAN. They are generally contained within flammable materials storage lockers or outdoor sheds, or on spill pallets with tarps or other coverage. The lockers are completely enclosed, provide containment for small spills, and do not appear to be a source of significant quantities of pollutants to the storm drain system. Large volumes of materials in 55-gallon drums tend to be stored indoors and associated with various tenant maintenance areas. Material storage areas for each industrial tenant are listed in Appendix E.

Appendix B, Figure SC-07 outline the main chemical and materials storage locations and the types of chemicals and materials stored. The figure attached to the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B outlines areas where materials are shipped and received or loaded and unloaded. SC06 and SC07 detail the BMPs required by the Authority for these activities.

Waste Treatment, Storage, and Disposal

Lavatory Waste: Lavatory waste is pumped daily from aircraft on the ramp or apron areas and transported to a specially designed waste disposal facility, an enclosed facility referred to as the triturator. The triturator is located near the old Commuter Terminal. To prevent sewage spills during the transfer of lavatory waste through the triturator into the sanitary sewer, the transfer is performed in a drive-up facility that has overhead cover. During aircraft lavatory servicing operations, chemical odorizers and/or sanitizers may be used. Airline tenants generally store this chemical indoors at the gate areas, or occasionally outdoors on spill pallets under overhangs or tarps. BMP SC11 in Appendix B covers Lavatory Service Operation and the associated BMPs required.

Hazardous Waste Storage: Hazardous waste, mostly waste oils, oil filters, and used absorbent materials in 55-gallon drums, is stored at:

- The Authority's boneyard area in Basin 6
- The FSF in Basin 6
- The gate areas in Basins 8, 12, and 15, the GSE maintenance areas in Basin 7, the FBO in Basins 1 and 3, and the north ramp in Basins 5 and 6.

The only locations at the airport at which more than 6000 kilograms (13,200 pounds) of hazardous waste might be stored at any time are the USTs for waste fuels at both the FSF and the RFF. Currently, no facility at the airport generates more than 1000 kilograms (2200 pounds) of hazardous waste in any one month. To address the potential release or transport of pollutants during hazardous waste storage and handling activities, the Authority requires the use of both the Outdoor Material Storage BMP (SC07) and the Waste Handling and Disposal BMP (SC08) in Appendix B. The areas at which hazardous waste storage occurs at the airport are also shown in the figure attached to these two BMP descriptions in Appendix B.

Waste Disposal: The main waste disposal area at SAN is the trash compactor/recycling bin/dewatering bin area, as outlined in the description for Basin 8 in Section 1.4. The trash compactors and de-watering bin are located within a bermed area. Drainage in the bermed area is directed towards a sump that also pumps the water and liquids into the dewatering bin before being discharged to the sanitary sewer. Additional disposal areas are the Terminal 2 trash compactor in Basin 12 and the sweeping disposal lowboy in Basin 6, as depicted in Appendix B, Figure SC-08. There are also dumpsters and recycling bins at various locations throughout the airport. To address the potential release or transport of pollutants during waste disposal activities, the Authority requires the use of the Waste Handling and Disposal BMP (SC08). The areas at

which waste disposal occurs at the airport are also shown in the figure attached to the Waste Disposal and Handling BMP description in Appendix B.

DUST AND PARTICULATE GENERATING ACTIVITIES AS POTENTIAL POLLUTANT SOURCES

Construction/demolition, aircraft and vehicle use and emissions, and airport operations can generate dust and particulates at SAN. In addition, airline off-loading of trash and debris from aircraft generates a significant source of gross pollutants, requiring proper handling and disposal. The main industrial areas generating dust and particulates are the runway/taxiway area, the terminal gate areas, the FBO, and the gate areas for cargo operators on the north ramp. The pollutants and particulates generated can include trash and debris, metals, and hydrocarbons. To address the generation of dust and particulates, the Authority requires the use of the Erodible Areas BMP (SC20) and the Building Repair and Construction BMP (SC21), as described in Appendix B.

SIGNIFICANT SPILLS AND LEAKS AS POTENTIAL POLLUTANT SOURCES

Fueling and equipment maintenance activities generally involve the use or handling of jet fuel, aviation gas, hydraulic oils, oil, deicing fluids, degreasers, and other solvents. Considering that approximately 400,000 gallons of jet fuel are handled and transferred from truck to aircraft every day at the airport, it is highly likely that the history of significant spills (as defined by the Industrial Permit) would involve the handling of jet fuel. The refueler trucks operate nearly all around the airport, from the ramp areas of the terminals and at the FBO, to the air cargo/air freight operations area, and overnight aircraft parking areas. Areas where the largest spills have occurred are the Terminal gate areas, the Fuel Storage Facility, the RON aircraft parking area, and the north cargo ramp area. In the last five years, all of these spills have involved less than 350 gallons; all were contained within SAN; all were immediately cleaned up; and none of these spills reached San Diego Bay. Spill procedures are described in Section 3.5 and the BMP required by the Authority to address spills is the Spill Prevention, Control, and Clean-up BMP (SR01) in Appendix B.

POTENTIAL NON-STORM WATER DISCHARGES AS POLLUTANT SOURCES

Potential unauthorized non-storm water discharges could include aircraft, vehicle, and equipment washing; power washing, ramp scrubbing, and runway rubber removal; non-emergency firefighting activities; improper materials and waste handling, storage, and disposal; and spills and leaks. However, as discussed in Section 7.7.4, BMPs are in place to avoid potential discharges from these sources. Authorized non-storm water discharges and non-emergency firefighting flows are described in Section 3.0, including the BMPs to control these discharges. The Authority's illicit discharge detection and elimination program is also discussed in Section 3.5. With nearly every drainage basin susceptible to tidal intrusion, the drainage areas where most of the potential authorized non-storm water discharges occur are Basins 1, 3, 8, 12, and 15 for potable water flushing; Basins 1, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 15 for air conditioning condensation; Basins 1, 3, 4, 5, 8, 9, 10, 11 and 14 for landscape watering; and Basin 6 for non-emergency firefighting activities (see Appendix B, Figure SC-13).

ERODIBLE SURFACES AS POTENTIAL POLLUTANT SOURCES

SAN is approximately 90 percent impervious and is either covered by structures or is made up of concrete/asphalt surfaces. Unpaved areas are the least tern nesting ovals in the southwestern corner of SAN (south of the runway), landscaped areas, and any active construction projects that may involve the removal of the impervious surface. The least tern nesting oval surfaces are generally very coarse gravel with little exposed soil. Landscaped areas are well maintained, and environmentally friendly landscaping, including a variety of indigenous and drought-tolerant plants, shrubs, and ground cover, are used where possible to prevent soil erosion. Where erosion does occur, sand bags or other storm drain inlet protection methods are employed and maintenance is performed to repair or revegetate the eroded areas. Active construction projects contain specific contract requirements for erosion and sediment control, as well as being required to

have a SWPPP or WPCP, per Section 5.0. Erodible surfaces are managed using the BMPs outlined in the Erodible Areas BMP (SC20) in Appendix B.

7.7.3.2 Summary of Industrial Sites and Sources

The industrial activities and pollutant sources occurring at SAN described above are summarized in Table 7-5. For each drainage basin at the airport (initially described in Section 1.4 and depicted in Figure 3), Table 7-5 presents the drainage basin number; the storm water runoff sampling location identification number for any sampling locations within the basin; the name of the industrial entity located or operating in that particular basin; the types of industrial activities occurring in the basin; and the potential pollutants associated with those activities. Similar and additional information is provided by individual industrial/commercial entity and the Authority on the Tenant Summary Sheets in Appendix E.

The potential pollutants listed in Table 7-5 are either stored or handled in the particular drainage basin identified. The main shipping and receiving area for most materials at the airport, including restaurant and catering food service supplies, occurs at the CRDC located in the northern part of Drainage Basin 6. A secondary cargo area is located in Drainage Basins 7 and 8 at the airline maintenance buildings; the fronts of the maintenance buildings are located in the southeastern portion of Drainage Basin 8, and the backs in the western portion of Drainage Basin 7. All shipping and receiving areas, including aircraft loading/unloading areas, are shown on the figure attached to the Outdoor Loading/Unloading of Materials BMP (SC06) in Appendix B. Pollutant sources stored, handled, shipped, or received by each individual industrial entity are itemized in the Tenant Summary Sheets in Appendix E. The Tenant Summary Sheets also include maps that depict the locations or operating areas for each entity. The locations for storage of particular types of materials and waste are indicated on Figure 3 and the figures attached to the Outdoor Material Storage BMP (SC07) and the Waste Handling and Disposal BMP (SC08) in Appendix B. The BMP descriptions in Appendix B also include maps of where particular activities occur at SAN, as well as a list of the pollutants associated with those activities, and therefore the areas where the BMPs should be implemented.

Table 7-5. Industrial Inventory by Drainage Basin

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
1 (C-B01-11)	Landmark Authority	Pesticide/herbicide usage Power washing Ramp/taxiway scrubbing Runway rubber removal	Antifreeze Asphalt debris Battery acid Brake fluid Cleaning solutions Fuel Hydraulic fluid Lubricants Metals Oil and grease Paints Rubber particulates Sediment Solvents Trash
2	No Industrial Tenants	None	None

Table 7-5. Industrial Inventory by Drainage Basin (continued)

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
3 (C-B03-1c, C-B03-2, C-B03-12)	DHL IAS Landmark	Aircraft fueling Aircraft maintenance Aircraft sanitary services Bldg/grounds maintenance Cargo handling Chemical storage Equipment degreasing Equipment fueling Equipment maintenance Equipment storage Fluid leaks from aircraft Fuel spills Fuel storage Outdoor loading/unloading Outdoor waste storage Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Vehicle fueling Vehicle maintenance	Antifreeze Asphalt debris Battery acid Brake fluid Cleaning solutions Dumpster wastes Fuel Hydraulic fluid Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Rubber particulates Solvents Trash
4 (No safe sampling location identified. See Appendix D-1 MIP for details.)	Authority	Ramp/taxiway scrubbing Runway rubber removal Power washing	Antifreeze Asphalt debris Battery acid Brake fluid Cleaning solutions Fuel Hydraulic fluid Lubricants Metals Oil and grease Paints Rubber particulates Sediment Solvents Trash

Table 7-5. Industrial Inventory by Drainage Basin (continued)

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
5 (C-B05-4, C-B05-13)	DHL FedEx IAS Authority UPS	Aircraft fueling Aircraft maintenance Cargo handling Chemical storage Equipment degreasing Equipment fueling Equipment maintenance Equipment storage Fluid leaks from aircraft Fuel spills Fuel storage Metals storage Outdoor apron wash Outdoor waste storage Vehicle fueling Vehicle maintenance	Antifreeze Asphalt debris Battery acid Brake fluid Cleaning solutions Dumpster wastes Fuel Hydraulic fluids Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Pesticides/herbicides/ fertilizers Rubber particulates Sediment Solvents Trash
6 (C-B06-5a, C-B06-14, C-B06-15, C-B06-16, C-B06-17)	Allied Aviation American ARFF Bradford DHL ELS Envoy FedEx IAS Authority SeaPort United UPS US Airways	Aircraft fueling Aircraft maintenance Aircraft sanitary services Bldg/grounds maintenance Cargo handling Chemical storage Equipment fueling Equipment maintenance Equipment painting Equipment storage Firefighting equipment testing Fluid leaks from aircraft Fuel spills Fuel storage Loading/unloading of gasoline, diesel and jet fuel Metals storage Offloading of water/ fuel mixture from a 3,000-gallon UST Outdoor apron wash Outdoor steam cleaning Outdoor waste storage Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Vehicle fueling Vehicle maintenance	Acetone Adhesives Antifreeze Battery acid Brake fluid Carburetor cleaner Cleaning solutions Deicing/anti-icing fluids Dumpster wastes AFFF Fuel Hydraulic fluids Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Pesticides/herbicides Propylene glycol Purple K Radioactive goods Recyclable paper/cardboard Rubber particulates Sealants Sediment Solvents Sump fuel Trash Transmission fluid

Table 7-5. Industrial Inventory by Drainage Basin (continued)

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
7 (C-B07-6, C-B07-7a)	Alaska Allied Aviation American ASIG Delta FlagShip Jet Blue Authority Southwest United	Aircraft maintenance Aircraft washing Bldg/grounds maintenance Cargo handling Chemical storage Equipment degreasing Equipment fueling Equipment maintenance Equipment storage Equipment washing Fuel spills Fuel storage Loading/unloading of gasoline, diesel, and jet fuel Metals storage Oils storage Outdoor steam cleaning Outdoor waste storage Power washing Vehicle fueling Vehicle maintenance Vehicle washing	Acetic acid Acetone Adhesives Antifreeze Battery acid Brake fluid Coolant Cleaning solutions Diesel Dumpster wastes Gasoline Hydraulic fluids Jet fuel Landscape wastes Lubricants Metals Oil and grease Paints Propylene glycol Rust preventer Sealants Solvents Sump fuel Trash
8 (C-B08-8, C-B08-19*) *Alternate sampling location. Will be used to represent runway runoff if C-B03-1c is inaccessible due to safety reasons.	Alaska British Airways Delta Flagship Frontier JAL Jet Blue Authority Southwest Spirit United Volaris	Aircraft deicing Aircraft fueling Aircraft maintenance Aircraft sanitary services Aircraft washing Bldg/grounds maintenance Cargo handling Chemical storage Equipment fueling Equipment maintenance Equipment storage Equipment washing Fluid leaks from aircraft Fuel spills Fuel storage Metals storage Oils storage Outdoor apron wash Outdoor loading/unloading Outdoor waste storage Power washing Pesticide/herbicide usage Potable water flushing Ramp/taxiway scrubbing Runway rubber removal Vehicle fueling Vehicle maintenance	Acetone Antifreeze Battery acid Brake fluid Caulking Cleaning solutions Coolant Degreasers Dumpster wastes Fuel Galvanizing compound Hydraulic fluids Landscape wastes Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Pesticides/herbicides/ fertilizers Propylene glycol Rubber particulates Sealant Solvents Trash Transmission fluid Turpentine
9	No Industrial Tenants	None	None

Table 7-5. Industrial Inventory by Drainage Basin (continued)

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
10	No Industrial Tenants	None	None
11	No Industrial Tenants	None	None
12 (C-B12-9a)	Air Canada Allegiant American British Airways Delta ELS Flagship JAL Jet Blue Authority Spirit United US Airways Virgin America Volaris West Jet	Aircraft fueling Aircraft maintenance Aircraft sanitary services Aircraft washing Bldg/grounds maintenance Cargo handling Chemical storage Equipment fueling Equipment maintenance Equipment storage Fluid leaks from aircraft Fuel spills Fuel storage Metals storage Oils storage Outdoor apron wash Outdoor loading/unloading Outdoor waste storage Pesticide/herbicide usage Potable water flushing Power washing Ramp/taxiway scrubbing Vehicle fueling Vehicle maintenance	Acetone Antifreeze Battery acid Brake fluid Caulking Cleaning solutions Coolant Degreasers Dumpster wastes Fuel Galvanizing compound Hydraulic fluids Landscape wastes Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Pesticides/herbicides Rubber particulates Sealant Solvents Trash Transmission fluid Turpentine
13	No Industrial Tenants	None	None
14	No Industrial Tenants	None	None

Table 7-5. Industrial Inventory by Drainage Basin (continued)

Drainage Basin/ Sampling Location ID	Facilities Located or Operating in Drainage Basin	Industrial Activities Conducted, Source Areas, or Potential Sources Within the Drainage Basin	Potential Industrial Pollutants
15 (C-B15-18)	Delta Flagship Hawaiian Authority Siemens United	Aircraft fueling Aircraft maintenance Aircraft overnight parking Aircraft sanitary services Aircraft washing Bldg/grounds maintenance Cargo handling Chemical storage Equipment fueling Equipment maintenance Equipment storage Fluid leaks from aircraft Fuel spills Fuel storage Metals storage Oils storage Outdoor apron wash Outdoor loading/unloading Outdoor waste storage Pesticide/herbicide usage Potable water flushing Power washing Ramp/taxiway scrubbing Vehicle fueling Vehicle maintenance	Acetone Antifreeze Battery acid Brake fluid Caulking Cleaning solutions Coolant Degreasers Dumpster wastes Fuel Galvanizing compound Hydraulic fluids Landscape wastes Lavatory chemicals Lavatory wastes Lubricants Metals Oil and grease Paints Pesticides/herbicides Rubber particulates Sealant Solvents Trash Transmission fluid Turpentine

7.7.4 BEST MANAGEMENT PRACTICE REQUIREMENTS

A BMP is broadly defined as any program, technology, process, siting criteria, operating method, measure, or device that controls, removes, or reduces pollution in storm water and authorized non-storm water discharges. The Authority has identified BMPs that are required to control industrial/commercial pollutant sources at SAN, in accordance with Provision E.5.b of the Municipal Permit and Section X.H of the Industrial Permit. The required BMPs were first presented in the SWMP prepared under the 2001 Municipal Permit (Regional Water Board Order No. 2001-01).

Both the Industrial Permit and the Municipal Permit require the Authority to implement BMPs to address potential pollutant discharges; however, the performance standard established by each permit is different. The Industrial Permit requires that the implementation of BMPs achieve BAT for toxic and nonconventional pollutants and BCT for conventional pollutants. The Municipal Permit requires that the implementation of BMPs achieve MEP. These standards were taken into account when developing the BMP requirements at SAN.

BMPs are commonly defined two ways: nonstructural or structural, and source control or treatment control. Nonstructural BMPs generally consist of processes, prohibitions, procedures, schedules of activities, etc., that prevent pollutants associated with industrial activities from entering storm water or authorized non-storm water discharges. They are generally low cost and low technology in nature. Structural BMPs either prevent the pollutants from coming into contact with storm water or treat/remove the pollutants in storm water. On the other hand, source control BMPs prevent contact between storm water and the pollution source and can be structural or nonstructural. Treatment control BMPs treat the storm water to remove pollutant(s) and are structural by their basic nature. Treatment control BMPs are not 100 percent effective, even if maintained and operated properly. From a cost and aesthetic perspective, treatment control BMPs that use natural processes are usually preferred over other fabricated or manufactured designs when conditions allow. Source control BMPs are preferred over treatment control BMPs because they are generally 100 percent effective if implemented properly and are usually less costly than treatment control BMPs.

LID BMPs can include source control or treatment control BMPs and are defined in the Municipal Permit as, "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of water of the United States through storm water management and land development strategies that emphasize conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions. LID BMPs include retention practices that do not allow runoff, such as infiltration, rain water harvesting and reuse, and evapotranspiration. LID BMPs also include flow-through practices such as biofiltration that may have some discharge of storm water following pollutant reduction." These types of BMPs are also referred to as Green Infrastructure. The types and designs of LID BMPs that can be implemented at SAN are discussed in detail in Appendix C.

The BMPs required by the Authority may consist of a single measure or activity, a set of BMPs, or a pollution prevention program. This section discusses BMPs that pertain to specific industrial activities and areas, as well as the minimum BMPs required airport-wide under the Industrial Permit. Also discussed are four specific pollution prevention programs implemented at SAN. One of these is the regularly scheduled power washing conducted by the airport janitorial services provider. The other three pollution prevention programs are conducted by the Authority and entail ramp sweeping, ramp scrubbing, and runway rubber removal. LID and structural treatment control BMPs implemented at SAN are discussed in Section 6.2 and in the Treatment Controls BMP (TC-01) in Appendix B and in Appendix C. They are also discussed below as advanced BMPs under the Industrial Permit.

Additional operational BMPs are discussed in other sections of this document, such as the Non-Storm Water Discharges section (Section 3) and the Public Participation and Education Component section (Section 9).

7.7.4.1 Updated BMP Requirements

The BMPs required by the Authority to address industrial pollutant sources at SAN were first summarized into 19 BMP titles in Appendix B of the August 2003 version of the SWMP and last presented in the same appendix of the March 2008 version of the SWMP. These 19 BMP titles are updated and revised as described below, to arrive at the current total of 25 required BMP titles. The updates and revisions are based on information gathered during recent site visits and annual inspections, the 2005, 2007, 2011, 2012, and 2014 Site Audits (Amec Foster Wheeler, 2005, 2007, 2009, 2011, 2013, 2015), the 2006 BMP Recommendations Report (Amec Foster Wheeler, 2006), as well as other information regarding current industry and technical standards. The updates and revisions include enhancements to existing BMPs currently being implemented at SAN and the addition of new BMPs where necessary.

One significant change has been the categorization of the BMPs according to the minimum BMPs required by Section X.H of the Industrial Permit. The required minimum BMPs include:

- Good housekeeping
- Preventive maintenance
- Spill and leak prevention and response
- Material handling and waste management
- Erosion and sediment controls
- Employee training programs
- Quality assurance and recordkeeping

A summary of updates to each BMP is as follows:

- SC01 – Non-Storm Water Management; BMP description enhanced to include 5 new elements
- SC02A – Outdoor Equipment Operations and Maintenance Areas; no changes.
- SC02B – Aircraft, Ground Vehicle, and Equipment Preventive Maintenance; no changes
- SC02C – Electric Vehicle Maintenance; added.
- SC03 – Aircraft, Ground Vehicle, and Equipment Fueling; no changes
- SC04 – Aircraft, Ground Vehicle, and Equipment Cleaning; BMP description enhanced to include 3 new elements
- SC05 – Aircraft Deicing/Anti-Icing; name changed

- SC06 – Outdoor Loading/Unloading of Materials; no changes
- SC07 – Outdoor Material Storage; no changes
- SC08 – Waste Handling and Disposal; name changed, 2 BMP descriptions modified, and BMP description enhanced to include 1 new element
- SC09 – Building and Grounds Maintenance; BMP description enhanced to include 7 new elements
- SC10 – Employee Training; no changes
- SC11 – Lavatory Service Operations; BMP description enhanced to include 1 modified element and 3 news elements
- SC12 – Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing); BMP description enhanced to include 2 new elements
- SC13 – Firefighting Foam Discharge; no changes
- SC14 – Potable Water System Flushing; no changes
- SC15 – Runway Rubber Removal; BMP description enhanced to include 1 new element
- SC16 – Parking Lots; BMP description enhanced to include 6 new elements
- SC17 – Storm Drain Maintenance; no changes
- SC18 – Good Housekeeping; no changes
- SC19 – Safer/Alternative Products; no changes
- SC20 – Erodible Areas; added
- SC21 – Construction and Remodeling/Repair; added
- SR01 – Spill Prevention, Control, and Clean-up; name changed and BMP description enhanced to include four new elements
- TC01 – Treatment Controls; name changed and BMP description enhanced to include one new element

All Authority staff and tenant personnel are required to implement the minimum BMPs as applicable and appropriate. Table 7-6 presents an assessment of the sources of pollutants that are likely to be found in storm water discharges at SAN and identifies the BMPs, in terms of individual BMP element, required to address those sources. Table 7-6 associates the pollutant sources with issues/areas identified by the BMP titles listed above. A list and description of all 25 BMP categories required by the Authority are in Appendix B. Appendix B also lists the pollutants reduced, the targeted pollutant-generating activities, and the applicable tenants responsible for each BMP, and materials or equipment needed for implementation of the BMP, and frequency of BMP implementation if applicable. The majority of BMPs are implemented during the course of daily operations (e.g., housekeeping and spill response). Each BMP has an associated map illustrating the areas of SAN where the BMP applies.

The particular BMPs, listed by individual element applicable to each tenant and to the Authority, are presented in Table 7-7, which also indicates whether the activity is being performed indoors or outdoors. The particular BMPs listed by individual element are presented in the Tenant Summary Sheets in Appendix E.

Table 7-8 summarizes the BMPs required at SAN in terms of the minimum BMP categories that they satisfy. Some SAN BMPs satisfy multiple requirements under the Industrial Permit.

Table 7-6. Potential Pollutant Sources at SAN

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Non-Storm Water Management throughout SAN	Prevention of non-storm water discharges	Misinformation (improper/lack of signs)	Metals, particulates, sediment, solid waste	SC01-01 Notify Airport Operations (619-400-2710) and the Airport Authority Environmental Affairs Department (619-400-2784) if there is any evidence of illicit connections or illegal discharges. SC01-02 Employees, tenants, and the public have been educated about non-storm water discharges, i.e., spill response and prevention, non-storm water pollution prevention, and hazardous materials management. SC01-03 Outdoor water supplies (hose bibs) are limited and posted with appropriate use signs to discourage uses that may pollute the storm drain system/receiving water. SC01-04 The site is free of evidence of illicit connections and illegal discharges. SC01-05 Irrigation does not occur during a scheduled rain event and 48 hours following a rain event. SC01-06 Irrigation systems and landscaped areas are periodically inspected to minimize excess watering and repair any leaks. SC01-07 Air conditioning or refrigerator condensation is directed to landscaping, porous surface, or into the sanitary sewer. SC01-08 Landscaped areas are irrigated using a satellite water-tracking system to reach proper levels of soil moisture applicable for landscaping, and following City of San Diego water restriction guidelines. SC01-09 Landscaped areas are irrigated using a hand-held hose equipped with positive shut-off nozzle, handheld water container, or timed sprinkler system.
		Litter improperly disposed of, including bottles and cans, paper and plastic bags, fast-food wrappers, cigarette butts, etc.	Solid waste	
		Improper hosing, power washing or washing down of vehicles or equipment	Fuel oil, particulates/sediment	
		Spills or leaks	Fuel, oils, sewage, trash	
		Over irrigation	Pesticides	
		Air conditioning condensate	Particulate, metals, oil and grease, bacteria	
Outdoor Equipment Operations and Maintenance Areas	Equipment operations and maintenance	Vehicle and aircraft use and emissions	Metals, fuels, lubricants, antifreeze	SC02A-01 Equipment operations and maintenance areas are not located directly in the path of storm drains. SC02A-02 There is a designated equipment operations and maintenance area with overhead cover for pollutant sources and/or activity areas.
		Industrial and commercial spills and releases	Metals, oils and greases, fuels, battery acids, antifreeze	
		Dirt or fluids from equipment and vehicles	Particulates/sediment, oils, lubricants, antifreeze, fuel, battery acid	
		Maintenance activities	Oil and grease, lubricants, hydraulic fluids, antifreeze	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Aircraft, Ground Vehicle, and Equipment Maintenance	Aircraft, ground vehicle, and equipment operations and maintenance	Industrial and commercial spills and releases	Metals, oils and greases, fuels, battery acids, antifreeze	SC02B-01 Employees are trained in safe vehicle and equipment operations. SC02B-02 Aircraft, vehicle, and equipment maintenance areas are not located directly in the path of storm drains. SC02B-03 There is a designated vehicle and equipment maintenance area that is either indoors or covered, bermed, enclosed, or sloped/positioned away from the MS4. SC02B-04 Equipment is regularly inspected and tested. SC02B-05 Visual observations are performed to detect fluids leaking from aircraft, vehicles and equipment; place drip pans under leaks as needed. SC02B-06 Aircraft, vehicles, and equipment are maintained in good condition to prevent or correct any leakage of oil or other fluids. SC02B-07 Drip pans are used during maintenance. SC02B-08 Drip pans containing fluids or other open containers are not left lying around; regularly transfer fluids for recycling or proper disposal. SC02B-09 Minimize the use of solvents or use less toxic solvents whenever possible; if solvents cannot be avoided, clean or drain parts in self-contained sinks or drum units, and check those units regularly for leaks. SC02B-10 Mechanical parts, equipment, and vehicles awaiting repair are stored under cover and away from storm drains. SC02B-11 Maintenance vehicles and maintenance areas are furnished with spill response materials. Adequately collect/remove absorbent materials from area after use and dispose of them in an appropriate manner. SC02B-12 Fluids and batteries are removed from salvage vehicles and equipment and disposed of properly. SC02B-13 Obsolete and inoperable vehicles and equipment are disposed of properly.
		Dirt or fluids from aircraft, equipment, and vehicles	Particulates/sediment, oils, lubricants, antifreeze, fuel, battery acid	
		Maintenance activities	Oil and grease, lubricants, hydraulic fluids, antifreeze	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Electric Vehicle Maintenance and Charging Areas	Electric vehicle charging, vehicle parking, and battery maintenance	Electrolye spills and improper storage of batteries	Acid, heavy metals	SC02C-01 Electric vehicle batteries are not overcharged. SC02C-02 Electric vehicles are parked in cool and dry areas when not in use, when possible. SC02C-03 Acid resistant drip pans sprinkled with battery acid neutralizing agent (e.g. lime or baking soda) are used when filling or cleaning electric vehicle batteries . SC02C-04 Maintain battery acid neutralizing kits adjacent to charging stations. Recover spill response material from area after use and dispose of them in an appropriate manner. SC02C-05 Avoid overfilling electric vehicle batteries. SC02C-06 Electric vehicle maintenance and/or battery filling is not performed during forecasted rain events. SC02C-07 Batteries are stored inside in a cool and dry place if possible. If batteries are stored outside, they are placed on a non-reactive impervious surface with cover. SC02C-08 Battery cases and terminals are cleaned regularly or when there is a buildup of corrosion using a rag wetted with a solution of water and battery acid neutralizing agent. Any wastewater is captured and treated as hazardous waste. SC02C-09 Apply petroleum jelly or grease on battery terminals to slow down corrosion process.
		Overcharged vehicles	Acid, heavy metals	
Aircraft, Ground Vehicle, and Equipment Fueling	Fueling	Fuel spills and improper storage of fuel	Jet fuel, gasoline, diesel	SC03-01 There is a designated fueling area that is covered, bermed, enclosed, or sloped/positioned away from the MS4. SC03-02 Fueling areas are not located directly in the path of storm drains. SC03-03 Tanks, piping, and valves are labeled, regularly inspected, and kept in good condition. SC03-04 Absorbent booms, spill kits, or vacuum equipment are located in fueling areas or on fueling vehicles. SC03-05 Fueling areas are regularly inspected. SC03-06 Major fueling operations are monitored. SC03-07 Secondary containment or cover is used when transferring fuel from a tanker truck to a fuel tank. SC03-08 Leak detection, overfill protection, and spill prevention devices are used for tanks and piping. SC03-09 Automatic shut-off mechanisms are used for fuel tankers and hose connections. SC03-10 Fuel tanks are not topped off.
		Leaking storage tanks	Jet fuel, gasoline, diesel	
		Aircraft, equipment, and vehicle leaks and spills	Jet fuel, gasoline, diesel	
		Hosing or washing down fuel areas without proper containment	Jet fuel, gasoline, diesel	
		Storm water run-on and runoff from fueling areas	Jet fuel, gasoline, diesel	
		Spills and leaks during delivery, including	Jet fuel, gasoline, diesel	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
		topping off		SC03-11 Access to tanks and fueling vehicles is restricted.
Aircraft, Ground Vehicle, and Equipment Cleaning	Cleaning	Aircraft, vehicle, or equipment washing	Particulates/sediment, oil and grease, metals, soaps/cleaning solutions	SC04-01 Vehicles, equipment, and washing areas are kept clean and free of waste. SC04-02 Dry washing and surface preparation techniques are used where feasible. SC04-03 Wash areas are not located directly in the path of storm drains. SC04-04 Pigs and cover mats are used to cover all catch basins in the surrounding area to contain the wash water during washing activities. SC04-05 Washing activities are performed in designated areas that capture, filter, and recycle water (e.g., at the new Wash Bay Facility), or using reclaimed water and diverting wash water to structural treatment control BMP, sanitary sewer, or dead end sump with pump. SC04-06 Visual observations and inspections of nearby storm drains are performed to detect discharges from cleaning materials. SC04-07 Drippings, residue, etc., are removed using vacuum methods; properly dispose of all waste materials. SC04-08 Vehicles are washed using a hand-held hose equipped with positive shut-off nozzle. SC04-09 Vehicles, aircraft, and equipment are washed only between the hours of 4pm and 10am from November 1 to May 31, and between 6pm and 10am from June 1 to October 31.
		Fall out from pressure washing	Particulates/sediment, oil and grease, metals	
Aircraft Deicing/Anti-Icing	Deicing/anti-icing	Spraying deicing fluid onto aircraft	Ethylene or propylene glycol	SC05-01 There is a designated deicing/anti-icing area that is covered, bermed, enclosed, or sloped/positioned away from the MS4. SC05-02 Deicing and anti-icing operations are regularly monitored to ensure quantities of fluids used are at a minimum while not jeopardizing aircraft safety and operation. SC05-03 All fluids are captured or diverted to a treatment plant, recycling system, sanitary sewer, or dead end sump with pump. SC05-04 Deicing/anti-icing areas are cleaned with wet-type sweepers and the fluids are recycled or disposed of properly.
		Deicing fluids dripping from aircraft without proper clean up	Ethylene or propylene glycol	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Outdoor Loading and Unloading of Materials	Loading/ unloading	Spills or leaks during loading/unloading	Fuel, oils, trash/debris	SC06-01 Contractors/haulers are aware of and adhere to BMP specifications. SC06-02 Loading/unloading areas are not located directly in the path of storm drains. SC06-03 Loading/unloading areas are graded, bermed, covered, or otherwise protected to prevent contact with rainfall and storm water run-on/runoff. SC06-04 Loading/unloading equipment is regularly checked for leaks. SC06-05 Drip pans or other containment measures are used under hoses. SC06-06 Loading and unloading areas are kept free of spills and debris by containing and absorbing leaks during transfers and spillage from hose disconnections or cargo pallets; dispose of residue or debris properly. SC06-07 Spill kits or other measures are available in accessible locations near potential spill areas to contain spills and/or prevent tracking off-site.
		Leaking of loading/unloading equipment	Fuel, hydraulic fluids	
Outdoor Material Storage	Material storage	Industrial and commercial spills and releases from storage units	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	SC07-01 Outdoor material storage areas are not located directly in the path of storm drains. SC07-02 Outdoor material storage areas have areas with overhead cover and secondary containment. SC07-03 Outdoor material storage areas are prevented from contacting storm water run-on and runoff (e.g., by the use of berms, wood pallets, etc). SC07-04 Cover and contain material stockpiles or implement erosion control practices at the perimeter of the site and at any inlets or catch basins to prevent the off-site transport of eroded material.

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Outdoor Material Storage (continued)	Material storage	Lack of proper secondary containment	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	SC07-05 Wood products treated with preservative chemicals are covered with tarps or stored indoors. SC07-06 Install protection guards (bollards, posts, or guardrails) around ASTs and piping to prevent damage from vehicles or forklifts and any subsequent release. SC07-07 Regular inspections are performed on tanks, containers, and berms to check for corrosion, structural failure, loose fittings, poor welds, leaks, etc.; repairs or replacements are performed as needed. SC07-08 Liquid materials in ASTs should be stored in double-walled, valved storage tanks or within concrete bermed secondary containment areas to provide the capacity to contain the entire volume of the single largest container, with sufficient freeboard to contain precipitation; the area inside the curb should slope to a drain. SC07-09 Precipitation from bermed areas should be drained to the sanitary sewer if available, or inspected and tested according to applicable regulations prior to its release to a storm drain; the drain must have a positive control, such as a lock, valve, or plug, below the product level in the tank to prevent release of contaminated liquids. SC07-10 Properly dispose of ponded storm water removed from bermed or containment areas. SC07-11 The facility/operation has and displays a County hazardous materials permit for hazardous materials storage. SC07-12 Accurate, up-to-date inventory of the materials delivered and stored on site is maintained.
		Raw material, and finished product stock piles	Metals, sediments, particulates, debris	
		Contact between stored materials and storm water run-on/off due to lack of cover/berms, etc.	Fuels, oil and grease, solvents, soap/cleaning fluids, lavatory chemicals, paints, battery acid, antifreeze, ethylene or propylene glycol, pesticides/herbicides, adhesives, rust preventers, AFFF, sealants	
		Improper storage of fuel	Fuels	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Waste Handling/ Disposal	Waste handling/ disposal	Lack or failure of proper secondary containment	Oils, fuels, antifreeze, deicing fluids	SC08-01 The facility/operation makes efforts to reduce waste (using only amount needed, using solvents more than once, practicing good inventory control, not overbuying, purchasing long-lasting products, etc.). SC08-02 The facility recycles waste materials when possible. SC08-03 There is a designated waste/recycling area with restricted access. SC08-04 Waste/recycling areas are not located directly in the path of storm drains. SC08-05 Secondary containment and cover for waste is provided. SC08-06 Wastes that are not contained or covered are prevented from contacting storm water run-on and runoff (e.g., by the use of berms). SC08-07 All dumpsters are covered and kept closed and any drain holes plugged. SC08-08 Waste containers are inspected frequently for leaks, structural integrity, and proper closure seal. SC08-09 Employees are trained to properly handle and dispose of wastes. SC08-10 Wastes and recycling materials are appropriately stored in containers, segregated, and labeled. SC08-11 Wastes are properly characterized and disposed of properly. SC08-12 Waste containers and sanitary facilities are prevented from overflowing by timely service and removal. SC08-13 Dumpster cleaning is performed in designated areas that are bermed to contain wash water; properly dispose of all fluids collected or discharge to the sanitary sewer. SC08-14 Track waste generated, stored, and disposed.
		Waste container leaks	Oils, fuels, antifreeze, deicing fluids	
		Improper training procedures	Oils, fuels, antifreeze, deicing fluids, lavatory wastes and chemicals	
		Contact between stored waste and storm water run-on/off due to lack of cover/berms etc	Oils, fuels, antifreeze, deicing fluids, trash/debris	
		Improper disposal practices	Wastewater, oil and grease, fuels, rubber debris, trash	
		Irregular waste removal schedule	Oils, fuels, antifreeze, deicing fluids, trash/debris	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Building and Grounds Maintenance	Maintenance	Painting	Metals	SC09-01 Landscaping, revegetating, or installation of erosion and sediment controls takes place in areas of exposed soil. SC09-02 Hand weeding is used when practical. SC09-03 Integrated pest management methods are implemented to minimize the use of pesticides, herbicides, and fertilizers; pesticides, herbicides, and fertilizers are used according to directions. SC09-04 Temporary BMPs such as portable booms and vacuum trucks are used to contain water from outdoor building or structure washdown activities. Reclaimed water is used, where possible, and waste water is collected and properly disposed of through a permitted connection to the sanitary sewer. SC09-05 Grass trimmings, leaves, sticks, and other collected vegetation are composted, where possible, or disposed of appropriately. SC09-06 Temporary stockpiled materials are removed at the end of the day or placed away from watercourses and drainage inlets; stockpiles are bermed and covered to prevent material releases to the storm drain. SC09-07 Pavement or sidewalk is cleaned (using dry methods or reclaimed water) of any residual materials or spills before applying irrigation water; wash water is properly captured and disposed of.
		Pesticide application	Organic compounds	
		Wood preserving	Metals	
		Underground utilities (copper grounding wires in electrical vaults connected to storm drains) and lighting systems	Metals	
		Roofing	Metals, tar	
		Cement in concrete pouring	pH	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Employee Training	Training	Mismanagement	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	SC10-01 The Authority SWMP and tenant SWPPPs covering the facility or operation are updated on a periodic basis and amendment pages for the SWMP or SWPPP are inserted as needed. SC10-02 Employees and contractors have been trained on storm water issues, implementation and effectiveness of BMPs, spill prevention and cleanup, hazardous materials management, right-to-know awareness, and SMWP or SWPPP implementation. SC10-03 Implement additional training programs for relevant employees and contractors covering SPCC implementation, the prohibition on cross-connections between sanitary sewers and storm drains, and contractor responsibility to comply with adopted BMPs. SC10-04 The facility/operation has current employee training records for employees that have participated in the storm water pollution prevention education program and other related training programs, and these records are maintained for 5 years.
		Lack of education outreach programs	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	
		Inefficient or irregular training	Oil and grease, hydrocarbons, pH, solid waste, particulates, sediment, ethylene glycol, metals, fuels, chemicals	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Lavatory Service Operation	Operating/ maintenance	Leaking or blocked hoses	Lavatory waste, BOD, lavatory chemicals	SC11-01 Triturator facilities are covered and have low roll-over type berming. SC11-02 The triturator facility/operation is not located directly in the path of storm drains. SC11-03 Hoses and fittings used for transferring lavatory waste are regularly inspected and kept in good condition. SC11-04 Absorbent booms, spill kits, and other containment equipment are present on lavatory service equipment and in the triturator facility/operation. SC11-05 Surfactant/disinfectant mixing and transfers are performed in the triturator area or under a cover. SC11-06 Drip pans are used when draining the aircraft and the drippage is dumped into the bulk storage tank of the lavatory service equipment. SC11-07 Spills of lavatory wastes and lavatory chemicals are immediately cleaned and properly disposed of at the triturator facility. SC11-08 All hoses, valves, and equipment are properly secured when transporting lavatory waste. SC11-09 Lavatory truck cleanouts/back flushing and lavatory waste discharging to sanitary sewer connections are performed ONLY at triturator facilities. SC11-10 Hoses are completely drained. SC11-11 Lavatory service trucks or trucks with spill prevention equipment installed are used, where possible. SC11-12 Temporary sanitary facilities must have secondary containment and be located away from watercourses, drainage facilities, traffic circulation, and high wind areas. SC11-13 Sanitary facilities are regularly inspected for leaks and spills and cleaned or replaced when necessary.
		Spills during operations	Lavatory waste, BOD, lavatory chemicals	
		Improper waste disposal	Lavatory waste, BOD, lavatory chemicals	
		Storm water contact with dirty lavatory trucks or hoses	Lavatory waste, BOD, lavatory chemicals	
		Lack of lavatory truck/hose maintenance	Lavatory waste, BOD, lavatory chemicals	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Outdoor Wash Down/Sweeping (Apron Washing Ramp Scrubbing)	Washing/ sweeping	Fallout from pressure washing operations	Particulates/sediment, rubber, debris, oil and grease, fuel	SC12-01 Sweeping and scrubbing equipment is regularly inspected and maintained to ensure effectiveness at removing pollutants and to avoid leaks. SC12-02 Roads, ramp areas, apron areas, and, if feasible, runway/taxiway areas are swept on a regular basis. SC12-03 Sweeping is performed during dry weather using dry sweeping techniques where feasible. SC12-04 Sweepers are operated at manufacturer-recommended optimal speeds. SC12-05 Debris and sediment from sweeping are disposed of properly. SC12-06 Outdoor washdown areas are bermed to contain wash water and to prevent run-on to other areas. SC12-07 The amount of water used during outdoor washdown activities is minimized. SC12-08 Wash water is collected and filtered and reused, or discharged to the sanitary sewer system through a permitted connection at designated and approved discharge facilities (i.e., dewatering bin). SC12-09 Records of the sweeping or scrubbing activities including the miles swept or scrubbed and the amount of waste collected are maintained. SC12-10 Running hoses are not used to wash down sidewalks or other hard surface areas. A water-efficient, filtering and recycling device must be used and all wash water must be prevented from entering the storm drain system (curb gutters, streets, alleys, and inlets). SC12-11 Reclaimed or recycled/filtered water is used.
		Improper waste disposal	Particulates/sediment, rubber, trash/debris, oil and grease, fuel, waste water, soaps	
		Irregular sweeping or scrubbing	Particulates/sediments, oils and grease, fuel, trash/debris	
		Industrial air emissions	Particulates/sediments, metals	
Fire Fighting Foam Discharge	Fire fighting	Ineffective containment of discharge	AFFF, wastewater	SC13-01 Fire fighting foam discharge/testing areas are not located directly in the path of storm drains. SC13-02 Fire fighting equipment is regularly inspected. SC13-03 There is a designated fire fighting foam testing area that captures or diverts all foam waste to a treatment/recycling plant, sanitary sewer, or dead end sump with pump. SC13-04 Sump(s) and/or oil water separator(s) are serviced regularly. SC13-05 Fire fighting foam testing areas are prevented from contacting storm water run-on and runoff (e.g., by the use of berms).
		Improper vacuum procedure	AFFF, wastewater	
		Improper waste disposal	AFFF, wastewater	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Potable Water System Flushing	Flushing	Fallout from flushing operations	Particulates/sediment, metals, oil and grease, fuels	SC14-01 The aircraft potable water system and water truck cleaning/flushing areas are not located directly in the path of storm drains. SC14-02 There is a designated cleaning/flushing area that captures or diverts all wastewater to a treatment/recycling plant, sanitary sewer, or dead end sump with pump. SC14-03 Cleaning/flushing areas are prevented from contacting storm water run-on and runoff (e.g., by the use of berms).
Runway Rubber Removal	Cleaning	Failure of equipment to adequately capture all waste water and debris	Rubber particulates/sediment/debris, metals, oil and grease, fuels	SC15-01 The amount of water used during runway rubber removal activities is minimized. SC15-02 Waste water produced from runway rubber removal activities is prevented from entering the storm drainage system by immediately collecting and properly disposing of it. SC15-03 Runways and adjacent paved areas are swept, either manually or using mechanical sweepers, following runway rubber removal activities. SC15-04 Storm drain inlets, catch basins, and runway drainage areas are inspected following runway rubber removal activities for any resulting debris; remove and properly dispose of debris. SC15-05 Reclaimed water is used, where possible.
Parking Lots	Maintenance of parking lots	Dirt and leaking fluids from equipment and vehicles	Particulates/sediment, oil and grease, brake fluid, fuel, antifreeze, metals	SC16-01 Parking lots are posted with "No Littering" signs. Trash receptacles are regularly emptied and covered. SC16-02 Parking lots are regularly swept. SC16-03 Sweepers are operated at manufacturer-recommended optimal speeds. SC16-04 Sweeping is performed in parking lot areas when the number of parked vehicles is lowest to maximize areas swept. SC16-05 Records of the sweeping activities are maintained including the miles swept and the amount of waste collected. SC16-06 Oily spots are cleaned with absorbent materials. SC16-07 Repairs are performed during dry weather. SC16-08 Nearby storm drain inlets, catch basins, and manholes are covered and sealed during parking lot repairs. SC16-09 Drip pans are used under paving equipment when not in use. SC16-10 Hot bituminous materials are preheated and transferred or loaded away from storm drain inlets. SC16-11 Absorbent materials, debris, and drips are disposed of properly. SC16-12 Rooftops downspouts do not drain onto paved surfaces. SC16-13 Dry methods are used to remove waste generated from repairs. SC16-14 Waste materials and debris generated from parking lot repairs is
		Dirt and grit from parking lots, driveways, sidewalks and landscaped areas	Particulates/sediment, metals	
		Litter improperly disposed of, including bottles and cans, paper and plastic bags, fast-food wrappers, cigarette butts, and more	Solid waste/trash	
		Galvanized metal roofs, gutters and downspouts	Metals, sediment	
		Paving and recycling operations	pH, debris, tar/hydrocarbons	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
				temporarily stored in containers or stockpiles with cover and berms around them. Materials are stored away from storm drain inlets.
Storm Drain Maintenance	Maintenance	Fallout from MS4 cleaning operations	Particulates/sediments, metals, trash and debris, fuel, oil and grease, bacteria, waste water	SC17-01 Storm drains are stenciled with "No Dumping" messages. SC17-02 The facility/operation conducts routine self-inspections of the storm water conveyance system; the Authority should inspect the entire MS4 at least annually, between the dates of May 1 and September 30. SC17-03 Appropriate measures are used to prevent discharges during MS4 cleaning and maintenance. SC17-04 Storm drains, inlets, and catch basins are cleaned and maintained before the wet season and as needed. SC17-05 Open channels are cleared of accumulated litter in a timely manner. SC17-06 Debris from cleaning activities is disposed of properly. SC17-07 Records are kept for all inspections, cleaning, and maintenance, including the quantity of waste removed.
		Irregular or inadequate inspection and maintenance schedule	Particulates/sediments, metals, trash and debris, fuel, oil and grease, bacteria	
Housekeeping	Cleaning/ tidying	Insufficient facility and BMP inspections	Trash/debris, oil and grease, paints, fuels, pesticides/herbicides, hydraulic fluids, antifreeze, rust preventers, sealants	SC18-01 The facility conducts routine self-inspections of BMPs. SC18-02 The facility/operation is kept clean and orderly. SC18-03 Trash receptacles are placed in appropriate locations. SC18-04 The facility/operation is swept at least once per week. SC18-05 Sweepings and sediment are disposed of properly. SC18-06 Potentially significant materials are stored in appropriate containers, properly sealed, and labeled. SC18-07 Secondary containment is provided for significant materials. SC18-08 Significant materials are stored in a restricted access area. SC18-09 Material Safety Data Sheets (MSDSs) are readily available for all significant materials.
		Improper trash handling/trash or FOD cans not covered	Trash and debris, bacteria	
		Lack or failure of proper secondary containment	Oils, fuels, antifreeze, brake fluids, hydraulic fluids, lubricants, paints, deicing fluids	
		Dirt and grit from ramp and facility areas	Particulates/sediment, metals, trash, and debris	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Safer/Alternative Products	Replacement of toxic with less or non-toxic materials	Use of toxic materials	Metals, hydrocarbons, synthetic organic compounds	SC19-01 This facility/operation uses "Regionally Accepted" products identified as non-toxic, less toxic, or biodegradable. SC19-02 Whenever possible, maximize the purchase and use of products containing recycled materials.
Erodible areas	Erosion	Erosion of disturbed areas	Sediment	SC20-01 Implement erosion control BMPs to stabilize soils. SC20-02 Implement wind erosion control BMPs to control dust. SC20-03 Maintain effective perimeter controls. SC20-04 Stabilize loose soils and slopes prior to a forecasted storm event. SC20-05 Prevent material tracking offsite. SC20-06 Stabilize loose soils and slopes prior to a forecasted storm event.
		Wind erosion	Sediment	
Construction and remodeling/repair	Construction	Erosion from erodible surfaces	Sediment	SC21-01 Avoid outdoor repairs and construction during rain events or during any period for which the National Weather Service is forecasting a 50% chance of precipitation. SC21-02 Stabilize inactive areas (where there will be no construction for 14 days) or finished slopes or erodible areas with erosion control. SC21-03 Implement wind erosion control BMPs to control dust, and limit traffic to stabilized roadways within the site, where possible. SC21-04 Maintain effective perimeter and run-on controls. SC21-05 Maintain effective inlet protection. SC21-06 Install a stabilized construction entrance to prevent offsite tracking. SC21-07 Sweep streets of any loose dirt or materials. SC21-08 Cover and contain all chemicals, liquids, erodible landscape materials, and fertilizers when not in use. SC21-09 Discontinue use of erodible landscape material within 2 days prior to forecast rain even or when it's raining.

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Construction and remodeling/repair (continued)	Construction	Offsite material tracking	Sediment, metals, oil, fuel, paint, trash/debris, hydraulic fluids, antifreeze, rust preventers, sealants	SC21-10 Waste containers are covered at the end of each work day and when it is raining. Use plastic under-sheets when appropriate. SC21-11 Cover waste containers at the end of each work day and prior to a rain event, and have waste recycled or collected and properly disposed of frequently. SC21-12 Perform concrete washout in designated areas away from inlets and drainage courses, and in appropriately sized and designed pits or containers. Empty regularly. SC21-13 Temporary sanitary facilities must have secondary containment and be located away from storm drains and traffic circulation. SC21-14 Minimize water usage and use reclaimed water where possible. SC21-15 Contain any particulate generating activities. SC21-16 Designate areas for fueling equipment and vehicles away from inlets and drainage courses, or perform offsite.
		Material spills	Metals, oil, fuel, paint, trash/debris, hydraulic fluids, antifreeze, rust preventers, sealants	
Spill Prevention, Control & Clean-up	Spill control	Fuel spills and improper storage of fuel	Fuels	SR01-01 The facility/operation has a current Spill Prevention, Control, and Countermeasure (SPCC) Plan or Spill Response Plan. SR01-02 A summary of the SPCC Plan, or spill response procedures, is posted at key locations, identifying the spill cleanup coordinators, location of cleanup equipment, and phone numbers of regulatory agencies to be contacted in the event of a spill. SR01-03 Relevant employees and contractors are trained in the implementation of the SPCC Plan, if applicable, or spill control procedures. SR01-04 Leak and spill prevention devices are used. SR01-05 The facility/operation has placed adequate spill kits in appropriate locations. SR01-06 Airport Operations (619-400-2710), the Airport Authority Environmental Affairs Department (619-400-2784), and any agencies or companies identified in the SPCC or facility spill prevention and response procedures, are notified in the event of a spill. SR01-07 Procedures identified in the SPCC or facility spill prevention and response procedures are followed in the event of a spill or release. SR01-08 The facility/operation uses only dry cleaning methods. SR01-09 Used spill control/clean-up materials are disposed of properly. SR01-10 Wash water is captured by vacuum and properly disposed of, or is diverted to a structural treatment control, sanitary sewer, or dead end sump with pump.
		Improper waste storage and disposal	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants	
		Aircraft, equipment and vehicle fluid leaks and spills	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	
		Inadequate spill response or spill response materials	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	
		Lack or failure of proper secondary containment	Oil and grease, fuel, hydraulic fluids, antifreeze, lubricants, battery acid	

Table 7-6. Potential Pollutant Sources at SAN (continued)

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Treatment Controls	Inspections/ cleaning/ maintenance	Irregular or inadequate inspections and maintenance	Particulates/sediment, oil and grease, metals, trash and debris, fuels	TC01-01 Structural and treatment control BMPs are regularly inspected, cleaned and maintained to prevent the accumulation or resuspension of oil, grease, floating debris and sediments. TC01-02 During cleaning operations of the treatment control device, close any effluent valves at the device; standing water and accumulated waste are removed and properly disposed of, and oil absorbent pads are replaced prior to the start of the wet season and as needed. TC01-03 Records are kept for all inspections and maintenance of structural and treatment control BMPs. TC01-04 An annual inventory of all treatment control BMPs is conducted.

Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER																
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
Elite Line Services	SC01, 02A, 02B, 02C, 04, 07, 08, 10, 14, 18, 19, SR01					O	X	O		I/O	I/O		O	O		X			O				O	X			O	
Envoy	SC01, 02A, 02B, 03, 04, 07, 08, 10, 11, 18, 19, SR01	O	O		O	O	I/O		O	O	I/O		O	O		X							O	X			O	
FedEx	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 10, 14, 16, 18, 19, SR01	O	O			O	O	O	O	O	I/O	O	O	I/O		X			O		O		O	X			O	
Flagship	SC01, 02A, 02B, 02C, 03, 04, 07, 08, 09, 10, 12, 18, 19, SR01					I/O	I/O	O	O	O	I/O		I/O	O	O	X	O						O	X			O	
Frontier	SC01, 02A, 02B, 03, 06, 08, 10, 11, 14, 18, 19, SR01	O			O	O	I/O		X		I/O	O		I/O		X			O				O	X			O	
Hawaiian	SC01, 02A, 02B, 03, 04, 06, 08, 10, 11, 14, 18, 19, SR01	O	O		O	O	X		O	O	I/O	O		I/O		X			O				O	X			O	
IAS	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 18, 19, SR01					O	O		O	O	I/O	O	I/O	I/O		X							O	X			O	
JAL	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 18, 19, SR01	O	O		O	O	O		O	O	I/O	O	O	I		X							O	X			O	
Jet Blue	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 14, 18, 19, SR01	O	O		O	O	O			O	I/O	O	O	I/O		X			O				O	X			O	
Landmark	SC01, 02A, 02B, 02C, 03, 04, 06, 07, 08, 09, 10, 11, 16, 17, 18, 19, 20, 21, SR01, TC01	O	O		O	O	O	O	O	O	I/O	O	I/O	O	O	X					O	O	O	X	O	I/O	O	O
SDCRAA	SC01, 02A, 02B, 03, 04, 06, 07, 08, 09, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, SR01, TC01				O	O	O		O	O	I/O	O	I/O	I/O	I/O	X	O		O	O	O	O	I/O	X	O	I/O	I/O	O
SeaPort	SC01, 02B, 02C, 03, 05, 08, 18, 19, SR01	O		O			I/O	O			I/O			O									O	X			O	

Table 7-7. BMPs Applicable to Individual Industrial Sites/Sources (continued)

TENANTS	SUMMARY OF INDUSTRIAL ACTIVITY CATEGORIES (See Appendix B For Associated BMPs)	AIRCRAFT				VEHICLES AND EQUIPMENT					OTHER																
		Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Aircraft Deicing/Anti-Icing	Lavatory Service Operation	Outdoor Equipment Ops and Maintenance Areas	Aircraft, Ground Vehicle and Equipment Maintenance	Electrical Vehicle Maintenance	Aircraft, Ground Vehicle and Equipment Fueling	Aircraft, Ground Vehicle and Equipment Cleaning	Non-Storm Water Management	Outdoor Loading/Unloading of Materials	Outdoor/Indoor Material Storage	Waste Handling and Disposal	Building and Grounds Maintenance	Employee Training	Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing)	Fire Fighting Foam Discharge	Potable Water System Flushing	Runway Rubber Removal	Parking Lots	Storm Drain Maintenance	Housekeeping	Safer/Alternative Products	Erodible Surfaces	Construction and Remodeling Repair	Spill Prevention, Control, and Clean-up	Treatment Controls
		SC03	SC04	SC05	SC11	SC02A	SC02B	SC02C	SC03	SC04	SC01	SC06	SC07	SC08	SC09	SC10	SC12	SC13	SC14	SC15	SC16	SC17	SC18	SC19	SC20	SC21	SR01	TCO1
Siemens	SC01, 02A, 02B, 02C, 08, 10, 18, 19, SR01					I	I/O	I/O			I/O			O		X							O	X			I/O	
Sky West	SC01, 02B, 03, 11, 14, SR01	O			O		O		O		I/O								O								O	
Southwest	SC01, 02A, 02B, 02C, 03, 05, 06, 07, 08, 10, 11, 14, 16, 18, 19, SR01	O		O	O	O	I/O	I/O	O		I/O	O	I/O	I/O		X			O		O		I/O	X			I/O	
Spirit	SC01, 02A, 02B, 03, 07, 08, 10, 11, 14, 18, SR01	O			O	O	O		O		I/O		I/O	O		X			O				O				O	
Sun Country	SC01, 02A, 02B, 03, 08, 10, 11, 18, 19, SR01	O			O	I	I				I/O			O		X							O	X			O	
United	SC01, 02A, 02B, 02C, 03, 06, 07, 08, 10, 11, 18, 19, SR01 14, 18, 19, SR01	O			O	I/O	I/O	I/O	O		I/O	O	I/O	I/O		X							I/O	X			I/O	
UPS	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 11, 18, 19, SR01	O	X		O	O	O		O	X	I/O	O	O	O		X							O	X			O	
US Airways	SC01, 02A, 02B, 02C, 03, 07, 08, 10, 14, 18, 19, SR01	O				O	I	I			I/O		I/O	I		X			O				I/O	X			I/O	
Virgin America	SC01, 02A, 02B, 03, 04, 06, 07, 08, 10, 14, 17, 18, 19, SR01	O	X			O	O			I/O	I/O	O	O	O		X			O			O	O	O			O	
Volaris	SC01, 02A, 02B, 03, 04, 07, 08, 10, 11, 14, 18, SR01	O	X		O	I/O	I/O			O	I/O		O	O		X			O				O				O	
WestJet	SC01, 02A, 02B, 03, 04, 06, 08, 10, 11, 18, 19, SR01	O	O		O	O	O			O	I/O	O		I		X							O	O			O	

Table 7-8. Minimum BMPs Implemented at SAN

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Good Housekeeping	Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly.	SC-01: Non-Storm Water Management SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-07: Outdoor/Indoor Material Storage SC-09: Building and Grounds Maintenance SC-15: Runway Rubber Removal SC-16: Parking Lots SC-17: Storm Drain Maintenance SC-18: Housekeeping SC-19: Safer/Alternative Products
	Minimize or prevent material tracking.	SC-18: Housekeeping SC-20: Erodible Areas SC-21: Building Repair and Construction
	Minimize dust generated from industrial materials or activities.	SC-20: Erodible Areas SC-21: Building Repair and Construction
	Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible.	SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-18: Housekeeping
	Cover all stored industrial materials that can be readily mobilized by contact with storm water.	SC-07: Outdoor/Indoor Material Storage SC-18: Housekeeping
	Contain all stored non-solid industrial materials or waste (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water.	SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-18: Housekeeping
	Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system.	SC-07: Outdoor/Indoor Material Storage SC-09: Building and Grounds Maintenance SC-12: Outdoor Washdown/Sweeping (Apron Washing, Ramp Scrubbing) SC-17: Storm Drain Maintenance SC-18: Housekeeping
	Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.	SC-01: Non-Storm Water Management SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-17: Storm Drain Maintenance

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Preventative Maintenance	Identify all equipment and systems used outdoors that may spill or leak pollutants.	SC-02A: Outdoor Equipment Ops and Maintenance Areas SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Establish an appropriate schedule for maintenance of identified equipment and systems.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
	Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.	SC-02B: Aircraft, Ground, and Equipment Maintenance SC-02C: Electrical Vehicle Maintenance SC-09: Building and Grounds Maintenance SC-17: Storm Drain Maintenance
Spill and Leak Prevention and Response	Establish procedures and/or controls to minimize spills and leaks.	SC-03: Aircraft, Ground, and Equipment Fueling SC-04: Aircraft, Ground, and Equipment Cleaning SC-10: Employee Training SC-11: Lavatory Service Operation SR-01: Spill Prevention, Control, and Clean-up
	Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials shall be cleaned promptly and disposed of properly.	SC-03: Aircraft, Ground, and Equipment Fueling SC-04: Aircraft, Ground, and Equipment Cleaning SC-11: Lavatory Service Operation SR-01: Spill Prevention, Control, and Clean-up
	Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures.	SR-01: Spill Prevention, Control, and Clean-up
	Identify and train appropriate spill and leak response personnel.	SR-01: Spill Prevention, Control, and Clean-up SC-10: Employee Training

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Material Handling and Waste Management	Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event.	SC-05: Aircraft Deicing/Anti-Icing SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water.	SC-05: Aircraft Deicing/Anti-Icing SC-06: Outdoor Loading/Unloading of Materials SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation SC-13: Fire Fighting Foam Discharge
	Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use.	SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Divert run-on and storm water generated from within the facility away from all stockpiled materials.	SC-05: Aircraft Deicing/Anti-Icing SC-06: Outdoor Loading/Unloading of Materials SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-13: Fire Fighting Foam Discharge SC-14: Potable Water System Flushing
	Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures (Section X.H.1.c).	SC-07: Outdoor/Indoor Material Storage SC-08: Waste Handling and Disposal SC-11: Lavatory Service Operation
	Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.	SC-08: Waste Handling and Disposal
Erosion and Sediment Controls	Implement effective wind erosion controls.	SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event.	SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site.	SC-01: Non-Storm Water Management SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	Divert run-on and storm water generated from within the facility away from all erodible materials.	SC-01: Non-Storm Water Management SC-20: Erodible Surfaces SC-21: Building Repair and Construction
	If sediment basins are implemented, ensure compliance with the design storm standards.	SC-21: Building Repair and Construction

Table 7-8. Minimum BMPs Implemented at SAN (continued)

Industrial Permit Minimum BMPs		BMPs Applicable to Authority and Tenants
Employee Training Program	Ensure that all team members implementing the various compliance activities of this General Permit are properly trained to implement the requirements of this General Permit, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP.	SC-10: Employee Training
	Prepare or acquire appropriate training manuals or training materials.	SC-10: Employee Training
	Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive.	SC-10: Employee Training
	Provide a training schedule.	SC-10: Employee Training
	Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.	SC-10: Employee Training
Quality Assurance and Record Keeping	Develop and implement management procedures to ensure that appropriate staff implement all elements of the SWPPP, including the Monitoring Implementation Plan.	SC-10: Employee Training
	Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP.	SC-10: Employee Training SC-12: Outdoor Washdown/Sweeping (Apron SC-16: Parking Lots SC-17: Storm Drain Maintenance
	Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years.	SC-10: Employee Training

ADVANCED BMPS

In addition to the minimum BMPs described above, the Authority implements a number of advanced BMPs to further prevent the discharge of pollutants in its storm water discharge. The advanced BMPs include exposure minimization and treatment control BMPs.

Exposure Minimization BMPs

Exposure minimization BMPs include storm-resistant shelters that prevent the contact of storm water with industrial materials or activities. Basins 3 and 7 contain permanent storm resistant shelters for vehicle and equipment maintenance. Basins 3, 5, 6, 7, 8, 12, and 15 contain fire-resistant cabinets, roll-top containers, storage sheds, and other storm resistant shelters for outdoor materials storage. Figures 3 and 5-7 show the locations of these shelters.

Storm Water Containment and Discharge Reduction BMPs

These BMPs include any that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. During the recent Green Build expansion of Terminal 2, artificial turf was added in Drainage Basin 15, near the RON parking lot, as well as porous pavement in that area to infiltrate runoff. Porous pavement and infiltration trenches were also installed as part of the Landmark FBO construction. Ten modular wetland systems are installed in the SANPark 2 parking lot on the north side of the runway. Additionally, air conditioning condensate is captured and reused in power washing activities.

Treatment Control BMPs

Treatment control BMPs include mechanical, chemical, and biological systems that are utilized to reduce pollutants in storm water. Existing treatment control BMPs include 15 high-rate media filters, 12 modular wetland treatment systems, 7 oil water separators, 6 grate inlet skimmers, 3 trench drain filters, 3 hydrodynamic separators, and numerous drain inlet inserts, downspout filters, and bioswales. These treatment control BMPs were selected, designed, and implemented per Appendix C of this SWMP. Any new treatment control BMPs will comply with the Industrial General Permit design storm standards as follows:

- Volume-based BMPs: The Authority, at a minimum, shall calculate the volume to be treated using one of the following methods:
  - The volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records;
  - The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice; or,
  - The volume of annual runoff required to achieve 80% or more treatment, determined in accordance with the methodology set forth in the latest edition of California Stormwater Best Management Practices Handbook, using local, historical rainfall records.
- Flow-based BMPs: The Authority shall calculate the flow needed to be treated using one of the following methods:
  - The maximum flow rate of runoff produced from a rainfall intensity of at least 0.2 inches per hour for each hour of a storm event;
  - The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or,

- The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in total pollutant loads as would be achieved by treatment of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

More information on treatment control BMPs is provided in Section 6.2 and Appendix C. Figures 3 and 5-7, and Appendix B, Figure TC-01, show the locations of these systems. Appendix C will be updated by December 2015, in accordance with the Municipal Permit.

POLLUTION PREVENTION PROGRAMS

Regular Power Washing

Outdoor tenant operational areas that are regularly cleaned by power washing include the concrete pad at the RFF and several cargo ramp areas. The airport janitorial services provider also regularly power washes the sidewalks in front of the terminals, the trash compactor areas near the terminals, the loading/unloading dock at the western end of Terminal 2 West, and the grease trap areas operated by the food service provider. Power washing is performed between 11pm and 4am. The janitorial services provider uses recovered air conditioning condensate instead of potable water for power washing. This water is collected into 55 gallon drums and, once full, the drums are transferred to the power washing reservoirs. In 2014, more than 5,225 gallons of condensate were recovered and used. The pressure washers used are equipped with a water recollection and filtration system. They are designed to collect all residual water, and filter, recycle, and reuse the water throughout the operation of the equipment. Before starting the pressure washing operation, janitorial staff locate all storm drain inlets and cover the areas with berms or mats. They then remove and sweep all trash, debris and cigarette butts. Next, staff will determine the path that the water will run and will funnel the water using berms and bags into the vacuum/reclaim system. Once the job is complete, the wash water is vacuumed up, hoses are drained into the sanitary sewage system or airport wash rack, and equipment is cleaned. The concrete pad at the RFF is steam cleaned, and the discharge enters the 12,000-gallon underground wastewater tank, which is serviced as needed and at least annually. Those tenants power washing the cargo ramp areas either perform the work themselves or contract for the service. All power washing is conducted in accordance with the BMPs described in Section 7.7.3.1.

Ramp Sweeping

The Authority FMD sweeps the aircraft gate and ramp (apron) areas seven days a week during evening hours. Using mechanical sweeping equipment utilizing regenerative air technology, the program is directed mainly at removing FOD, but it also removes sediment, particulate matter, and other pollutants. The schedule allows sweeping of each gate area approximately twice per month; some areas are swept more frequently upon request. Perimeter roads and taxiways are swept at least once per week. The debris/sweepings are vacuumed up into the unit and are disposed of in a lowboy container located in the northern portion of drainage basin 6. All sweeping is conducted in accordance with the BMPs described in Section 7.7.3.1.

Ramp Scrubbing

The janitorial services provider performs ramp scrubbing as needed, at a minimum of once every six months, using 3,500 psi industrial pavement washers. A biodegradable waxy soap, specifically made for oil removal, is used during the procedure. The soap is stored in two 100-gallon plastic containers on wooden pallets, under cover, at Terminal 2 West. The wash water is vacuumed up and collected by the Authority's environmental contractor, who filters and reuses the water. The north ramp/cargo areas near the control tower are scrubbed when tenants request it or as needed. The janitorial services provider recently acquired a pressure washing truck for ramp scrubbing. This truck is equipped with a vacuum water reclamation system, a series of two drums for solids and grease removal, and four filters to filter water for direct reuse. The FMD also contracts for a professional concrete cleaning company to conduct large-scale ramp scrubbing operations to thoroughly clean ramp and apron areas once per year or as needed.

Runway Rubber Removal

Runway rubber removal is conducted by a professional company under contract to the Authority. An all-in-one system is used that uses either high-pressure water or a chemical rubber removal solution and scrubbing action followed by a rinse(s). Both systems vacuum up the rubber and any residual liquids. Runway rubber removal is performed as warranted by runway friction testing, although quarterly rubber removal tends to be normal.

7.8 PROGRAM IMPLEMENTATION

The Authority has identified those updated BMPs applicable to industrial activities at SAN (Table 7-6 and Appendix B) and has also identified those BMPs applicable to individual tenants and to the Authority (Table 7-7 and Appendix E). Tenants and Authority departments are required to adopt applicable BMPs, when necessary, as new activities are added or existing activities change. BMPs or elements of BMPs requiring major operational and/or structural modifications must be implemented in a timely manner. New BMP requirements will be incorporated into any SWMP updates, as required by both the Industrial Permit and Municipal Permit.

All tenants and Authority departments (with storm water management responsibilities) maintain current, up-to-date copies of the SWMP in either hard-copy or electronic copy, or have immediate access to the SWMP via the internet. The Tenant Summary Sheets in Appendix E list the contact information for each tenant. Tenants are required to notify the Authority EAD at least annually regarding any need to update or modify the SWMP. All industrial tenants should be knowledgeable of the BMPs required for use by the Authority to address their individual operations and activities (see Tables 7-6 and 7-7, and Appendix B and E, respectively).

The specific elements of the Authority's industrial storm water management activities are presented in Sections 7.8.1 through 7.8.5.

7.8.1 EDUCATION AND OUTREACH

Details on education and outreach programs for Authority staff, tenants, and the general public related to industrial activities are provided in Section 9.0.

7.8.2 STAFF TRAINING

All Authority staff members are provided annual SWMP implementation training regarding topics such as prohibited discharges, BMP requirements, good housekeeping, inspections, spill response, and recordkeeping procedures. Authority staff training is mandatory. Additional details on staff training are in Section 9.0.

7.8.3 WET WEATHER SAMPLING AND ANALYSIS

The Authority is required to collect and analyze storm water samples from four QSEs each year. A qualifying storm event is defined as a storm producing discharge from at least one drainage area and preceded by at least 48 hours with no discharge from any drainage area. The samples will be collected according to the following timeline:

- Two QSEs during the first half of each reporting year (July 1 through December 31)
- Two QSEs during the second half of each reporting year (January 1 through June 30)

Samples will be collected within the first 4 hours after the start of discharge.

The details of the industrial compliance monitoring are provided in Appendix D-1, the Monitoring Implementation Plan.

7.8.4 FACILITY INSPECTIONS

Generally, the Authority staff and industrial tenants inspect their operating and storage areas either daily or as part of their own routine facility inspections. Tenants are encouraged to request the assistance of the Authority FMD for any cleaning that cannot be addressed by their own efforts (in response to lease obligations) or that are not being addressed by the Authority's regularly scheduled ramp-sweeping or ramp-scrubbing programs. The Authority Airside Operations Department staff also inspect the terminals, ramps, runway, and the FBO continuously during operating hours (and are generally available 24 hours per day).

Any inspections specifically required by the either the Municipal Permit or the Industrial Permit will be conducted by the Authority EAD, as discussed below. The Authority may choose to require tenants and/or other Authority staff to conduct inspections that might complement the permit-required inspection program and further ensure that BMPs are being properly implemented. The Authority recommends that tenants conduct at least semi-annual inspections of their activities and operational areas and that they maintain records of these inspections as further means to ensure that BMPs are being properly implemented. Inspection records should be retained for at least five years.

7.8.4.1 Municipal Permit Inspection Requirements

The Authority is required to conduct inspections of industrial activities/operations/facilities to monitor compliance with the Municipal Permit, as well as the Authority's ordinances, permits, and approvals. The Municipal Permit (Provisions D.3.b.(3)(b) and D.3.b.(3)(c)) outlines procedures for determining the number of high-priority industrial sites that must be inspected in any given year of program implementation under the renewed Municipal Permit. Nevertheless, the Authority has determined that all industrial entities at SAN are considered high priority (as noted in Section 7.7.3.1) and each one will be inspected at least monthly. These inspections will be coordinated with inspections for the Industrial Permit (described below).

7.8.4.2 Industrial Permit Inspection Requirements

The Industrial Permit requires the Authority to conduct an inspection program to ensure that the BMPs being implemented are evaluated and revised to meet changing conditions, aid in the implementation and revision of the SWMP, and measure the effectiveness of BMPs to prevent or reduce pollutants in storm water discharges and authorized non-storm water discharges, and identify additional BMP needs. The inspections must be recorded and the program revised whenever appropriate. Inspections are readily available for review by Authority staff and tenants via the Authority's Web-based database. The Industrial Permit inspection requirements include the following:

- Monthly dry weather visual observations
- Sampling event visual observations to coincide with storm water sampling
  - Two observations between July 1 and December 31
  - Two observations between January 1 and June 30
- Annual Evaluation (addressed in Section 7.10.1)

Monthly Dry Weather Discharge Visual Observations: The Authority's EAD conducts monthly inspections of SAN to observe authorized non-storm water discharges and their sources and to verify that BMPs required to control those authorized discharges are being properly implemented and are effective. The Authority also conducts monthly visual observations of all drainage areas to identify any prior, current, or potential

unauthorized non-storm water discharges and their sources. Authority staff evaluate authorized non-storm water discharges to ensure that (1) they comply with the Industrial Permit and the Municipal Permit; (2) required BMPs are effective in preventing or reducing the contact of non-storm water discharges with industrial materials or equipment and to minimize, to the MEP, the flow or volume of discharges; (3) authorized non-storm water discharges do not contain or transport significant quantities of pollutants that cause or contribute to an exceedance of a water quality standard; (4) they comply with the Authority's Storm Water Code and Rules and Regulations; and (5) they meet BAT/BCT standards. The monthly inspections also verify the list of potential pollutants at the industrial sites/sources, and identify any necessary modifications to the SWMP.

The monthly observations are conducted during daylight hours on days with no storm water discharges. The observations are conducted at least once per calendar month. Each year, at least one of the monthly inspections becomes the Annual Evaluation discussed below. The observations document the presence of any uncharacteristic volumes, discolorations, stains, odors, floating material, etc., as well as the source of any discharge. Records of the observations, including date, location, description of observations, and response taken to eliminate unauthorized non-storm water discharges, to reduce or prevent pollutants from contacting non-storm water discharges, and BMP corrective actions needed, are maintained by the Authority EAD via its Web-based database, as described below.

Sampling Event Visual Observations: The Authority's EAD conducts visual observations of storm water discharges at all storm water monitoring locations at the same time that sampling occurs at those discharge locations. Two such observations take place between July 1 and December 31 and two observations take place between January 1 and June 30 of each year. Visual observations are not required during dangerous weather conditions, such as electrical storms or flooding. During observations, the Authority documents the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, trash, or debris, and the source of any pollutant observed. If the presence of pollutants is observed, efforts will be made to identify the source of the pollutants. The investigation will begin at the sampling location and continue upstream through the drainage basin until the pollutant source is located, if possible. Once the source is located, the Authority will direct that corrective actions to reduce or prevent pollutants from contacting storm water discharge be taken by the responsible party. Visual observations of stored or contained storm water, such as at the FSF, are conducted at the time of release. Containment areas are checked monthly to detect leaks and to ensure the maintenance of adequate freeboard. The SWMP will be revised, if necessary, in response to any issues identified during the sampling event visual observations.

Annual Evaluations: One Annual Evaluation is conducted in each reporting year, as required by Industrial Permit Section XV. The procedures for Annual Evaluations are discussed in Section 7.10.1, below.

7.8.4.3 Formal Inspection Procedures for Industrial Sites and Sources

Formal inspections of industrial sites and sources by the Authority's EAD staff generally include a review of the following information, to the extent the information exists: (1) any SWPPPs or BMP implementation plans; (2) any relevant monitoring data; (3) any self-inspection records; and (4) any previous inspection reports. The inspection generally involves an assessment of: (1) compliance with the SWMP and the Authority's ordinances and permits related to urban runoff; (2) existing BMP requirements and the adequacy of BMP implementation, BMP maintenance and effectiveness, and the site supervisor/manager's efforts to make appropriate adjustments when ineffective BMPs have been identified; (3) confirmation of no exposure for all drainage areas previously identified as having no exposure to industrial activities; and (4) visual observations for authorized and unauthorized non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff. The inspection also presents an opportunity to provide education and training regarding storm water pollution prevention.

There are four basics steps in the Authority's facility/site inspection procedures: initiation, preparation, site visit, and post-inspection activities.

Step 1: Initiation: The inspection is typically initiated in response to a schedule, a public report or complaint, or an illicit discharge investigation, or as follow-up to a previous inspection, violation, or other enforcement action. The inspector typically conducts a complete inspection of the entire facility/site, regardless of the initiating circumstances. However, the inspectors may choose to focus on specific issues that were previously identified or that were the reason for the initiation of the inspection.

Step 2: Pre-Inspection Preparation: Prior to visiting a facility/site, the inspector reviews any of the available information noted above and reviews the Authority's Web-based database which tailors the inspection form (found in Appendix G) to each particular tenant or facility. Using maps and other sources, the inspector familiarizes themselves with general site location and vicinity, including proximity to storm drain inlets. The inspector also gathers needed equipment, i.e. an iPad, tablet, or smart phone to access the Web-based database and to record the inspection, a camera, and pertinent documents or information not available in the database or internet, maps, and any other required equipment.

Step 3: The Site Visit: The inspector begins assessing site conditions upon approach to the facility/site. Depending upon circumstances and availability, the inspector may begin by interviewing the facility/site operator or other responsible individual. The inspector then verifies/clarifies observations made upon approaching the facility/site, and identifies and evaluates the BMP requirements applicable to the site/activity, as well as the effectiveness of the BMPs being implemented. If responsible individuals are available, the inspector will ensure that the contact information and BMP requirements on record are accurate and will discuss how various BMP requirements are being met (especially if requisite BMPs have been incorporated into the operations and activities in a manner that may not be obvious). The inspector typically asks to see any existing pollution prevention plans, records, or environmental management system documentation not previously gathered or available. While conducting a walkthrough of the facility/site, the inspector notes those industrial/commercial areas and activities that are exposed to precipitation (potentially increasing the risk of pollutants entering the storm drain system). Areas of storm water run-on and runoff are also noted. The inspector uses the walkthrough to assess the accuracy of site maps, descriptions of the areas and activities, and lists of materials onsite; the effectiveness of the BMPs being implemented; and any evidence of potential or existing illegal discharges. The inspection is documented on the Web-based database, as outlined below. The inspection is acknowledged by both the inspector and the responsible individual (or designee) for the facility/site, in a back and forth communication on any issues requiring corrective actions.

Step 4: Post-Inspection Activities: After the inspection, the inspector ensures that actions are taken to address any immediate concerns; updates the Authority's records, as necessary; completes the inspection via the Authority's Web-based tracking application and ensures that a copy is issued to the responsible party; issues corrective action or enforcement orders to the responsible party via the Web-based database, as necessary; schedules follow-up inspections, as needed; and makes reports or referrals, as needed, to the appropriate departments or agencies.

7.8.4.4 Inspection Tracking and Records

The Authority's EAD conducts various inspections at SAN to maintain and ensure compliance with both the Industrial Permit and the Municipal Permit. The various inspection programs were outlined above. The inspections are documented within the Authority's Web-based database. Inspection reports and/or summaries, as appropriate, are included in the Annual Reports required by the Industrial Permit and Municipal Permit. The inspection forms used for each of the various inspection programs are presented in Appendix G.

The Authority generally conducts all inspections using the Web-based database in real time. However, the Authority may utilize the following inspection forms generated by the California Stormwater Quality Association (CASQA) if the database is not available:

- Form 1 – BMP Inspection Form
- Form 2 – Visual Observation Log—Monthly
- Form 3 – Visual Observation Log—Sampling Event

[Note – Appendix G also includes CASQA Form 4 – Sampling Log, which is used to present the results of wet weather sampling and analysis. The wet weather sampling and analysis performed by the Authority in compliance with the Industrial Permit is discussed in Appendix D-1 of this SWMP.]

Alternatively, the inspections may be recorded directly in the Web-based database, the application developed for the Authority EAD to track and manage the storm water management program data. The Web-based database can be used to document BMP deficiencies for each tenant during monthly, annual, or ad hoc inspections. It can also be used as a platform to correspond with tenants on inspection issues, view records on inspection history, and access storm water reference material.

Both the inspection forms and the Web-based database incorporate the minimum required inspection tracking information per Industrial Permit Section XI.A.3 and Municipal Permit Provision E.5.c(3). This includes the inspector's name, name and location of each inspected entity, inspection date and time, findings of the inspection, description of any deficiencies, violations or pollutants observed, a description of any applicable enforcement actions, and date of resolution for each deficiency or violation. Any SWPPP revisions required in response to the visual observations will be implemented by the EAD.

7.8.4.5 Owner Operator Notifications

One objective of the SAN SWMP is to notify all industrial sites/sources at SAN, whether operated by tenants or the Authority, of the BMP requirements deemed applicable to each site/source by the Authority. As noted above, all tenants and Authority departments (with storm water management responsibilities) are provided and maintain current, up-to-date copies of the SWMP in either hard-copy or electronic copy, or have immediate access to the SWMP via the internet. BMP descriptions are also provided to all tenants in.

Notification of BMP deficiencies will be conveyed via the Web-based database. When an inspection or audit of a tenant area is complete, an authority inspector will upload the results of the inspection, including text and photos, into the Web-based database. An email is then generated by the Web-based database and sent to the tenant. The tenant is then provided with the opportunity to enter a resolution for each deficiency identified. The inspector then reviews the resolution for completeness and either approves or denies the action. Enforcement measures for issues that cannot be resolved in a timely fashion are addressed in Section 7.8.4.6.

7.8.4.6 Enforcement Measures

This section describes the ERP as it applies to industrial areas and activities at SAN. In accordance with the Municipal Permit, the ERP has been updated concurrently with submittal of the final San Diego Bay WQIP, so that the ERP aligns with WQIP strategies.

All industrial tenants operating within the Authority's jurisdiction are required to maintain compliance with the Authority Rules and Regulations, Storm Water Code (Article 8), SWMP, the Industrial Permit, the Municipal Permit, and contracts and leases. Any findings or violations noted during a site inspection by the EAD inspector will be discussed onsite or via the Web-based database with the Authority employee or

tenants. A corrective action form may also be used to document the problem and its resolution. The EAD inspector will discuss the issues and the inspection report will detail the corrective actions required and the timeframe in which corrective actions must be completed. Findings and violations will be described and recorded in the Web-based database (and will include photographs and other information, as applicable).

The Authority requires that corrective actions be started immediately and be completed prior to the next predicted rain event or within a maximum of 30 days, whichever is sooner. Depending on the nature of the finding, some corrective actions may take longer to complete. In those cases, the Authority employee or tenants will provide an explanation to the EAD inspector and a suggested timeframe for completion, which the EAD inspector will either agree upon, or will reject and provide a preferred timeframe. (Note: corrective actions must be completed within 24 hours for Enforcement Level 2 violations, as described below.) The Authority or tenants must document the corrective action taken by responding to EAD through the Web-based database. The Authority or tenants who cannot complete corrective actions in the time required must explain in detail through the Web-based database the specific causes of delay and propose a schedule for compliance. EAD has the sole discretion to grant an extension or pursue escalated enforcement. All corrective actions, as well as the time periods allowed and dates of actual completion, are recorded in the Web-based database.

The enforcement mechanisms used by the Authority are listed below. The Authority generally obtains compliance using the first four mechanisms listed here. The remaining enforcement mechanisms can be used, as necessary, to increase the severity of penalties and to compel compliance as soon as possible.

1) Verbal and written warnings

2) Written notices of violation

3) Written notices to clean, test, or abate

4) Order to cease and desist (stop work orders)

5) Fines

6) Denial or revocation of permits and approvals

7) Administrative and criminal penalties

8) Bonding requirements

9) Liens

The Authority's ERP for industrial dischargers has two main levels of enforcement, with escalating enforcement measures utilized as necessary on a case by case basis, using the professional judgment of the Authority inspector. The Authority has the discretion to initiate or escalate enforcement using any enforcement mechanism available, depending on the nature of the violation or discharge, the effect on water quality, and the degree of cooperation or response time of responsible parties. Further information on enforcement activities used by the Authority is provided in Section 2.3. The general escalated enforcement process is outlined below:

- Enforcement Level 1 is initiated by the finding of BMP deficiencies. The responsible party is contacted and the inspector provides a verbal warning to fix the observed violation. The notification will also be documented in the Web-based database so that the responsible party and interested parties are aware of the violation. The responsible party can then notify the inspector via the Web-based database when the corrective action has been completed. If the inspector determines that the violation is severe enough that a verbal warning is not sufficient, a written notice will be issued to the responsible party. The written

notice documents the violation, the time frame for correction, and the date of follow-up inspection. The written notice will be provided to the responsible party and the facility/operation supervisor. If the violation is resolved within the time frame, the inspector will document compliance and save the inspection information in the inspection file.

- Enforcement Level 2 is initiated when the noncompliant activity or violation may impact water quality, human health, or the environment (i.e. prohibited discharge). A written notice to clean, test, or abate, and/or a CDO is used to initiate enforcement and compliance is expected within 24 hours. If a CDO is issued, the recipient must cease and desist all activities that cause or contribute to illegal discharges or remove illicit connections. A notice and order to clean, test, and abate is a written or verbal order to perform the activities listed in the Authority's Storm Water Code. Penalties and fines may be issued if administrative authority is ineffective and the violation continues.

If the noncompliance resulted in a spill or discharge, the party responsible for the discharge is responsible for conducting cleanup measures appropriate to the degree of the spill or discharge, or if needed, for contacting the appropriate emergency response or cleanup contractor.

Contractors and developers are required to abide by the Authority documents, permits, rules, and regulations while working within airport operational areas. The Authority may use provisions within the contract to correct any noncompliant activities. The Authority may also employ this mechanism for tenants that are under lease or use permits.

7.8.4.7 Reporting of Industrial Non-Filers and Incidents of Noncompliance

REPORTING OF INDUSTRIAL NON-FILERS

Per Municipal Permit Provision E.6.e(2), the Authority is required to report any persons required to obtain coverage under the Industrial Permit and failing to do so, within five calendar days of becoming aware of the non-filer. As noted in Section 1.0 of this SWMP, the industrial operations at SAN have been subject to the Industrial Permit since 1992. At that time, the Port of San Diego filed a NOI with the permit that included all the industrial entities at SAN. Since then, ownership and operation of SAN was transferred from the Port of San Diego to the Authority, and the Port of San Diego filed a Notice of Termination from permit compliance and listed the Authority as the new facility operator for SAN. In March 2003, the Authority filed a NOI to comply with the Industrial Permit and listed the primary SIC code for the site as 4500 Air Transportation. In response, the State Water Board issued WDID #937I018035 to SAN. In August 2003, the Authority prepared the SAN SWMP to comply, in part, with the Industrial Permit. As was true at the time that the Port of San Diego operated the airport, all airport tenants operate under lease or license agreement with the airport owner/operator, which is currently the Authority. As a result, industrial operations and tenants at SAN are also subject to the requirements of the Industrial Permit and must comply with the Authority direction regarding storm water management at SAN, as described in Section 7.2.

Incidents of Noncompliance

The Authority may issue a written enforcement notice for incidents of repeat or serious noncompliance. If an incident or practice of noncompliance occurs, EAD staff will then determine whether the incident endangers human health or the environment by considering the following criteria:

- Characteristics, quantity, and toxicity of substances/materials involved
- Proximity of site to a sensitive water body (San Diego Bay)
- Proximity of site to an impaired water body (San Diego Bay)
- Proximity of site to a sensitive habitat/endangered species

- Estimated volume of actual and/or potential discharge
- Whether the incident involves a discharge to the storm drain
- Condition of the storm drain system (clog, etc.)

If the Authority determines that the incident does endanger human health or the environment, then the Authority will provide verbal notification to the Regional Water Board within 24 hours from the time that the Authority becomes aware of the circumstances. Within five days from the time that the Authority becomes aware of the circumstances, the Authority will provide the Regional Water Board with a written submission containing a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following will be reported within 24 hours:

- Any unanticipated bypass that exceeds any effluent limitation in the Municipal Permit
- Any upset which exceeds any effluent limitation in the Municipal Permit
- Violation of a maximum daily discharge limitation for any or the pollutants listed by the Regional Water Board in the Municipal Permit to be reported within 24 hours

In addition, under the Industrial Permit, incidents of noncompliance are grounds for enforcement actions and /or removal from Industrial Permit coverage. If any storm water or non-storm water discharges exceed the discharge prohibitions, effluent limitations, or receiving water limitations specified in the Industrial Permit, or exceed any applicable water quality standards in the State Water Board or Regional Water Board Basin Plans, the facility is not in compliance. Should such a situation arise, the Authority will submit a report to the Regional Water Board within 60 days describing BMPs currently being implemented and additional BMPs that will be implemented, with a schedule of implementation, to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Following approval of the report by the Regional Water Board, the Authority will revise and implement this SWMP and monitoring program, as necessary, within 90 days to incorporate any additional BMPs that may have been and/or will be implemented (including a schedule for implementation) and any additional monitoring requirements. Any anticipated noncompliance, such as a planned change at the airport facility that will change the nature or increase the amount of pollutants discharged, will be reported to the Regional Water Board. Any noncompliances will be reported in the monitoring report discussed below, and will include a description of the noncompliance and its cause, the date and time of the noncompliance and whether it has been corrected, and the steps taken or planned to reduce and prevent a recurrence of the noncompliance.

7.9 EXCEEDANCE RESPONSE ACTIONS

The Industrial Permit establishes NALs for certain pollutants (described in Appendix D-1). Under the Industrial Permit, all industrial dischargers are in baseline compliance status for the first year of implementation. If the pollutant levels are found to exceed either an annual NAL or an instantaneous NAL in a given year, this baseline status will change to Level 1 beginning July 1 of the subsequent year. The actions required under Level 1 status are described in Section 7.9.1. If pollutant levels are found to exceed an annual or instantaneous NAL while in Level 1 status, it will enter Level 2 status beginning July 1 of the subsequent year. The actions required under Level 2 status are described in Section 7.9.2. The exceedance response level is pollutant-specific, meaning that the Authority may fall under Baseline, Level 1, and Level 2 status for different pollutants within the same reporting year.

The Authority is required to implement water quality-based corrective actions if industrial discharges and/or NSWDs are found to be in violation of receiving water limitations in San Diego Bay. These required actions are summarized in Section 7.9.3.

7.9.1 LEVEL 1 EXCEEDANCE RESPONSE ACTIONS

The Authority is in baseline status for all pollutants for the 2015-2016 reporting year. If sampling results indicate an NAL exceedance for a parameter, the Authority will enter Level 1 status for that parameter beginning July 1 following the reporting year for which the exceedance occurs.

By October 1 following commencement of Level 1 status for any parameter, the Authority will complete an evaluation, with the assistance of a QISP, of the industrial pollutant sources at SAN that are or may be contributing to the exceedance. The evaluation will also identify the corresponding BMPs in this document (the SWPPP) and any additional BMPs that may be necessary to prevent future NAL exceedances and comply with the Industrial Permit. All drainage areas will be included in this evaluation.

No later than January 1 following commencement of Level 1 status, the Authority will revise this document as necessary and implement any additional BMPs identified by the QISP in the Level 1 evaluation. The QISP will prepare a Level 1 ERA Report. The LRP or his representative will submit this report via SMARTS and will include the QISP's identification number, name, phone number, and email address. The report will include:

- A summary of the Level 1 ERA evaluation
- A detailed description of any SWPPP revisions made and additional BMPs implemented for each parameter that exceeds an NAL

7.9.1.1 Returning to Baseline from Level 1 Status

The Authority will return to baseline status for a given parameter if the following conditions are met:

- A Level 1 ERA Report has been completed
- All identified additional BMPs have been implemented
- Results from four consecutive QSEs indicate no additional NAL exceedances for that parameter

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1 (whichever comes first), sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances in SMARTS.

7.9.2 LEVEL 2 EXCEEDANCE RESPONSE ACTIONS

If the Authority is in Level 1 status for a given parameter, the Level 1 ERA Report has been completed, and the sampling results indicate that an NAL exceedance for the same parameter has occurred, the Authority will enter Level 2 status for that parameter beginning on July 1 of the subsequent reporting year. Level 2 status requires submittal of a Level 2 ERA Action Plan and Level 2 ERA Technical Report.

7.9.2.1 Level 2 ERA Action Plan

The Level 2 ERA Action Plan will be prepared by a QISP. The LRP or his representative will certify and submit this report via SMARTS and will include the QISP's identification number, name, phone number, and email address. The plan will be submitted by January 1 following the reporting year in which the exceedance triggering a new Level 2 status occurred. A new Level 2 exceedance is any Level 2 NAL

exceedance for a new parameter in any drainage area or an exceedance of the same parameter that is being addressed in an existing Level 2 ERA Action Plan, but in a new drainage area. This plan will, at a minimum, address the drainage area in which the Level 2 exceedance has occurred.

For each new Level 2 exceedance, the plan will identify which of the following demonstrations the Authority has elected to perform:

- Industrial Activity BMP Demonstration: describing additional BMPs that will be implemented to eliminate future NAL exceedances, or any which are not feasible to be implemented and the reasons why
- Non-Industrial Pollutant Source Demonstration: finding that the exceedance of the NAL is due solely to the presence of non-industrial pollutant sources
- Natural Background Pollutant Source Demonstration: finding that the NAL exceedance is due solely to the presence of the pollutant in the natural background, undisturbed by industrial activities

The Level 2 ERA Action Plan will include a detailed schedule and description of tasks required to complete the selected demonstration. All elements of the Action Plan will be implemented as soon as practicable and will be completed no more than one year following submittal of the plan.

7.9.2.2 Level 2 ERA Technical Report

By January 1 of the reporting year following submittal of the Level 2 ERA Action Plan, the Authority will certify and submit via SMARTS a Level 2 ERA Technical Report. This report must include one of the three demonstrations listed above and described in Section XII.D.2 of the Industrial Permit. Upon submittal of the Level 2 ERA Technical Report, both the State Water Board and Regional Water Board may review the report; if the report is found to be deficient, the Authority may be directed to take further action to comply with the Industrial Permit. The Authority may be granted an automatic one-time extension to the January 1 submittal deadline if the following items are submitted to SMARTS:

- Reasons for the extension
- A revised Level 2 ERA Action Plan with a schedule and tasks necessary to complete the Level 2 ERA Technical Report
- A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed

Any additional extensions must be approved in writing by the Regional Water Board. The Regional Water Board may require that additional tasks or temporary BMPs be implemented.

The Level 2 ERA Technical Report will be updated annually upon additional NAL exceedances of the same parameter within the same drainage area outlined in the report. The report will also be updated annually following any facility operational changes, pollutant source changes, or new and relevant inspection and monitoring results. This updated Level 2 ERA Technical Report will be submitted with each Industrial Annual Report. If there have been no changes necessitating an updated Level 2 ERA Technical Report, the Authority will certify in the Annual Report that no changes are needed.

If the Authority anticipates entering Level 2 status, the Level 2 ERA Action Plan or Level 2 ERA Technical Report may be submitted early, provided that there is adequate information available. Early submittal of these documents will result in the Authority automatically being placed in Level 2 according to the Level 2 ERA schedule.

7.9.2.3 Returning to Baseline Status From Level 2 Status

The Authority will be eligible to return to baseline status for a pollutant only if the Level 2 ERA Technical Report follows the Industrial Activity BMP Demonstration and all BMPs outlined in the Level 2 ERA Action Plan have been implemented. The results from four consecutive QSEs must also indicate no additional NAL exceedances for that parameter. If any future NAL exceedances occur for that parameter, the Authority will automatically enter Level 2 status on July 1 of the subsequent reporting year, bypassing Level 1.

The Authority will not be eligible to return to baseline status if any of the following are submitted in the Level 2 ERA Technical Report:

- An Industrial Activity BMP Demonstration stating that all of the implemented BMPs, including additional BMPs outlined in the Level 2 ERA Action Plan, achieve compliance with the Industrial Permit but are not expected to eliminate future exceedances. This demonstration must include an evaluation of any additional BMPs that could reduce or prevent NAL exceedances that are not being implemented, estimated costs of these additional BMPs, and an analysis of the basis for selecting the BMPs implemented rather than the additional BMPs evaluated.
- A Non-Industrial Pollutant Source Demonstration.
- A Natural Background Pollutant Source Demonstration.

7.9.3 VIOLATION OF RECEIVING WATER LIMITATIONS

Per Industrial Permit Section XX.B, the Authority will implement water quality-based corrective actions if it is determined that industrial storm water discharges or authorized NSWDs are in violation of any applicable receiving water limitations within the receiving water, or are causing or contributing to an exceedance of a water quality standard within the receiving water. Water quality-based corrective actions are different from Level 1 and Level 2 ERAs that result from effluent-based monitoring, and it is possible to be engaged in Level 1 or Level 2 ERAs while simultaneously being required to perform water quality-based corrective actions. The Authority will conduct a facility evaluation to identify any BMPs described in the SWPPP that are not being properly implemented. Following this evaluation, the SWPPP itself will be assessed to determine whether additional BMPs are needed to reduce pollutants to a level meeting receiving water limitations. If necessary, the SWPPP will be revised. These evaluations and revisions will be certified and submitted via SMARTS for review by the Regional Water Board, which may reject these corrective actions or request more documentation.

7.10 ANNUAL EVALUATION AND REPORTING

7.10.1 ANNUAL EVALUATION

The Authority conducts one Annual Evaluation during the Industrial Permit reporting period of July 1 through June 30 (which corresponds to the fiscal year of the Authority). Annual Evaluations are conducted within 8 to 16 months of each other. The Annual Evaluation process generally follows the procedure outlined in Section 7.8.4.3, and includes a review of all visual observations records, inspection records, and sampling and analysis results; inspections, review, and evaluation of all BMPs to determine whether the BMPs are adequate, properly implemented, and maintained, or whether additional BMPs are needed; a visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system; an inspection of all drainage areas previously identified as having no exposure to industrial activities and materials; and a visual inspection of equipment needed to implement the SWMP, such as spill response equipment. Any incidents of noncompliance are noted and the responsible party is directed by the Authority to take corrective action. The Annual Evaluation process includes timely follow-up inspections

whenever BMP deficiencies are found at any particular site. The process also produces a report that identifies any necessary revisions to the SWMP or to the Authority's BMP requirements, or to the descriptions of the BMPs, and outlines a schedule for implementing any necessary revisions. Any revisions necessary must be implemented within 90 days of the Annual Evaluation.

7.10.2 ANNUAL REPORTING

Both the Municipal Permit and the Industrial Permit require the Authority to submit Annual Reports to the Regional Water Board. The Municipal Permit requires submission of an Annual Report by January 31 of each year, which includes the information listed in Provision F.3 of the Municipal Permit. The Industrial Permit requires submission of an Annual Report by July 15 of each year, which includes the information listed in Section XVI of the Industrial Permit for the preceding 12-month period of July 1 through June 30. Annual Reports are signed and certified by the LRP or his DAR.

The Industrial Annual Report will be submitted via SMARTS. The following components will be included in the report:

- A compliance checklist indicating compliance with the components of the Industrial Permit
- An explanation for any incidents of noncompliance, as indicated in the compliance checklist
- An identification, including page numbers, of all revisions made to the SWPPP within the reporting year
- The date(s) of the Annual Evaluation

The Municipal Annual Report consists of two components, an assessment of the Jurisdictional Runoff Management Program for July 1 through June 30 of the preceding year, and a WQIP monitoring and assessment evaluation for October 1 through September 30 of the preceding year. The requirements of the Municipal Annual Report are discussed in more detail in Section 12.1.

7.10.3 RECORDS MANAGEMENT

Records of all storm water monitoring information, copies of all reports (including Annual Reports) required by the Municipal Permit and the Industrial Permit, records of all data used to complete the NOI for the Industrial Permit, and all other data and information required by either permit will be retained by the Authority for a period of at least five years. These records will be provided to the Regional Water Board, State Water Board, or USEPA within 10 days of receipt of a written request for information, or during office hours for review by the Regional Water Board.

7.11 INDUSTRIAL COMPONENT EFFECTIVENESS ASSESSMENT REPORTING

The Authority has developed internal and external effectiveness assessment programs to evaluate the Authority staff, Authority boards, and tenant compliance with water quality issues. The Authority's Effectiveness Assessment component is described in Section 11.6.

7.12 INDUSTRIAL COMPONENT PROGRAM REVIEW AND MODIFICATION

The Authority has reserved this section to identify and document future changes to the Industrial Component of the SWMP. Section 13.0 of this SWMP details the program modifications made to the March 2008 version of the SWMP to bring this document into compliance with the renewed Municipal Permit and Industrial Permit.

Section 13.0 will also be used as an amendment log for any future revisions to the SWMP. The amendment log will note the date of each amendment. The Authority will continue to revise the SWMP as needed, including changes necessary because of the following:

- There is a change in the total industrial area exposed to storm water.
- Additional BMPs are added.
- There is a significant change in industrial operations that may affect the type or amount of a pollutant that may be discharged.
- There is a change in the parties responsible for implementation of the SWMP.
- A revision is otherwise deemed necessary.

The revised SWPPP will be submitted via SMARTS within 30 days when it contains significant revisions. The onsite SWPPP will be kept up to date at all times, although SWPPP revisions are not required to be certified and submitted via SMARTS more than once every three months.

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